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| | | | |
|------|----|--------|-----------------------------------------------------------------------------------------------------------|
| NEWS | 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS | 2 | DEC 01 | ChemPort single article sales feature unavailable |
| NEWS | 3 | FEB 02 | Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE |
| NEWS | 4 | FEB 02 | GENBANK enhanced with SET PLURALS and SET SPELLING |
| NEWS | 5 | FEB 06 | Patent sequence location (PSL) data added to USGENE |
| NEWS | 6 | FEB 10 | COMPENDEX reloaded and enhanced |
| NEWS | 7 | FEB 11 | WTEXTILES reloaded and enhanced |
| NEWS | 8 | FEB 19 | New patent-examiner citations in 300,000 CA/CAPLUS patent records provide insights into related prior art |
| NEWS | 9 | FEB 19 | Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01 |
| NEWS | 10 | FEB 23 | Several formats for image display and print options discontinued in USPATFULL and USPAT2 |
| NEWS | 11 | FEB 23 | MEDLINE now offers more precise author group fields and 2009 MeSH terms |
| NEWS | 12 | FEB 23 | TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms |
| NEWS | 13 | FEB 23 | Three million new patent records blast AEROSPACE into STN patent clusters |
| NEWS | 14 | FEB 25 | USGENE enhanced with patent family and legal status display data from INPADOCDB |
| NEWS | 15 | MAR 06 | INPADOCDB and INPAFAMDB enhanced with new display formats |
| NEWS | 16 | MAR 11 | EPFULL backfile enhanced with additional full-text applications and grants |
| NEWS | 17 | MAR 11 | ESBIOBASE reloaded and enhanced |
| NEWS | 18 | MAR 20 | CAS databases on STN enhanced with new super role for nanomaterial substances |
| NEWS | 19 | MAR 23 | CA/CAPLUS enhanced with more than 250,000 patent equivalents from China |
| NEWS | 20 | MAR 30 | IMSPATENTS reloaded and enhanced |
| NEWS | 21 | APR 03 | CAS coverage of exemplified prophetic substances enhanced |
| NEWS | 22 | APR 07 | STN is raising the limits on saved answers |
| NEWS | 23 | APR 24 | CA/CAPLUS now has more comprehensive patent assignee information |
| NEWS | 24 | APR 26 | USPATFULL and USPAT2 enhanced with patent assignment/reassignment information |
| NEWS | 25 | APR 28 | CAS patent authority coverage expanded |
| NEWS | 26 | APR 28 | ENCOMPLIT/ENCOMPLIT2 search fields enhanced |
| NEWS | 27 | APR 28 | Limits doubled for structure searching in CAS REGISTRY |
| NEWS | 28 | MAY 08 | STN Express, Version 8.4, now available |
| NEWS | 29 | MAY 11 | STN on the Web enhanced |

NEWS 30 MAY 11 BEILSTEIN substance information now available on
STN Easy
NEWS 31 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased
limits for exact sequence match searches and
introduction of free HIT display format
NEWS 32 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal
status data

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 20:24:45 ON 15 MAY 2009

| | | |
|----------------------|------------|---------|
| => file reg | | |
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.22 | 0.22 |

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STRUCTURE FILE UPDATES: 14 MAY 2009 HIGHEST RN 1146852-72-3
DICTIONARY FILE UPDATES: 14 MAY 2009 HIGHEST RN 1146852-72-3

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<http://www.cas.org/support/stngen/stndoc/properties.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10568148.str



```

chain nodes :
26 27 29 30 31 32 33 34 36 37 38 39 40
ring nodes :
1 2 3 4 5 6 7 11 12 13 14 15 16 17 18 19 20 21 22 23
chain bonds :
2-34 2-36 3-37 3-38 4-40 6-39 12-26 15-27 16-29 20-33 21-32 22-31 23-30

ring bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 11-16 11-12 12-13 13-14 13-17 14-15
14-19 15-16 17-18 18-19 18-20 19-23 20-21 21-22 22-23
exact/norm bonds :
1-2 1-6 1-7 2-3 2-34 2-36 3-4 3-37 3-38 4-5 4-7 4-40 5-6 6-39 12-26
13-17 14-19 15-27 16-29 17-18 20-33 21-32 22-31 23-30
normalized bonds :
11-16 11-12 12-13 13-14 14-15 15-16 18-19 18-20 19-23 20-21 21-22 22-23
isolated ring systems :
containing 1 : 11 :

```

G1:C,O,S,N

G2:H,CH3,Et

Match level :

```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 11:Atom 12:Atom 13:Atom
14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom
23:Atom 26:CLASS 27:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS
34:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS 40:CLASS

```

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

FULL SEARCH INITIATED 20:25:18 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 55631 TO ITERATE

100.0% PROCESSED 55631 ITERATIONS

239 ANSWERS

SEARCH TIME: 00.00.01

L2 239 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

185.88

186.10

FILE 'CAPLUS' ENTERED AT 20:25:23 ON 15 MAY 2009

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FILE COVERS 1907 - 15 May 2009 VOL 150 ISS 21

FILE LAST UPDATED: 14 May 2009 (20090514/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate

=> s l2 full

L3 34 L2

=> d ibib abs hitstr tot

L3 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:253368 CAPLUS

DOCUMENT NUMBER: 150:397901

TITLE: NMR enantiodiscrimination phenomena by quinine C9-carbamates

AUTHOR(S): Uccello-Barretta, Gloria; Vanni, Letizia; Balzano, Federica

CORPORATE SOURCE: Dipartimento di Chimica e Chimica Industriale, Universita degli Studi di Pisa, Pisa, 56126, Italy

SOURCE: European Journal of Organic Chemistry (2009), (6), 860-869

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several C9-carbamoyl derivs. of quinine were prepared and compared as chiral solvating agents in NMR enantiodiscrimination expts. of amino acid derivs. The origin of the enantiodiscrimination phenomena was identified by NMR conformational anal. of the chiral auxiliaries and study of solution complexation phenomena.

IT 1137945-57-3 1137945-59-5 1137945-67-5

1137945-86-8 1137945-96-0 1137946-02-1

1137946-13-4 1137946-30-5

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(NMR enantiodiscrimination phenomena by quinine C9-carbamates)

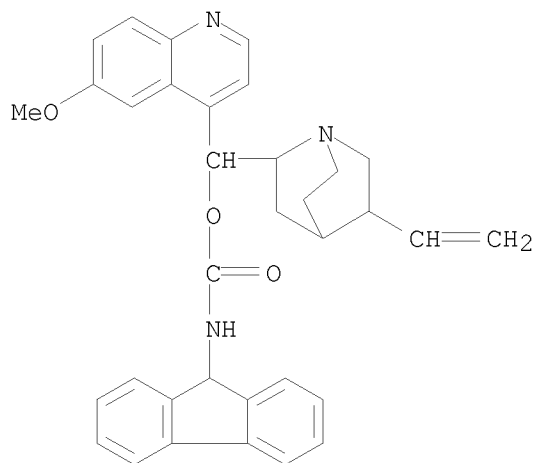
RN 1137945-57-3 CAPLUS

CN D-Alanine, N-(2,2,2-trifluoroacetyl)-, compd. with (8 α ,9R)-6'-methoxycinchonan-9-yl N-(9H-fluoren-9-yl)carbamate (1:1) (CA INDEX NAME)

CM 1

CRN 1137945-38-0

CMF C34 H33 N3 O3

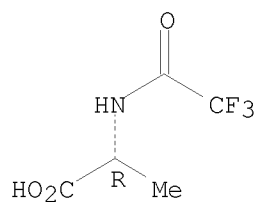


CM 2

CRN 7592-26-9

CMF C5 H6 F3 N O3

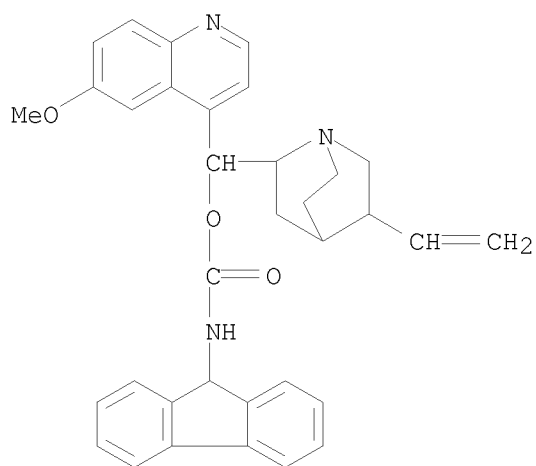
Absolute stereochemistry.



RN 1137945-59-5 CAPLUS
 CN L-Alanine, N-(2,2,2-trifluoroacetyl)-, compd. with
 (8 α , 9R)-6'-methoxycinchonan-9-yl N-(9H-fluoren-9-yl)carbamate (1:1)
 (CA INDEX NAME)

CM 1

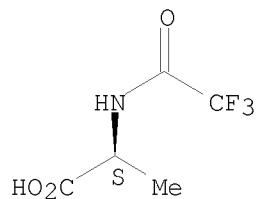
CRN 1137945-38-0
 CMF C34 H33 N3 O3



CM 2

CRN 407-23-8
 CMF C5 H6 F3 N O3

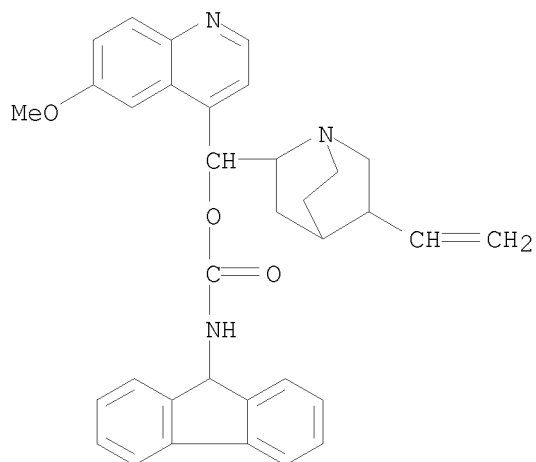
Absolute stereochemistry.



RN 1137945-67-5 CAPLUS
 CN L-Valine, N-(2,2,2-trifluoroacetyl)-, compd. with
 (8 α , 9R)-6'-methoxycinchonan-9-yl N-(9H-fluoren-9-yl)carbamate (1:1)
 (CA INDEX NAME)

CM 1

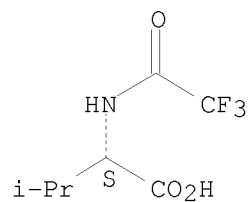
CRN 1137945-38-0
CMF C34 H33 N3 O3



CM 2

CRN 349-00-8
CMF C7 H10 F3 N O3

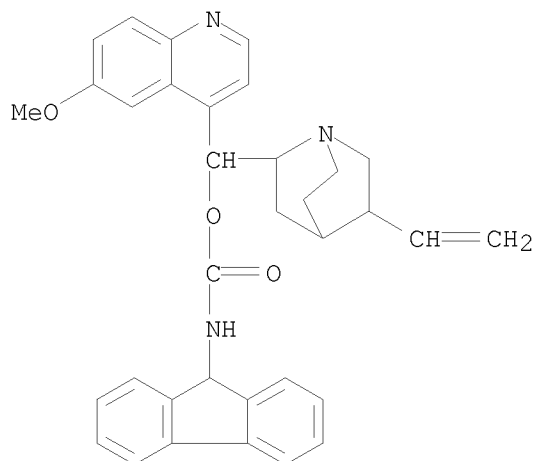
Absolute stereochemistry. Rotation (-).



RN 1137945-86-8 CAPLUS
CN Cinchonan-9-ol, 6'-methoxy-, 9-[N-(9H-fluoren-9-yl)carbamate], compd. with
N-[(1S)-2-methyl-1-[(octylamino)carbonyl]propyl]-3,5-dinitrobenzamide
(1:1) (CA INDEX NAME)

CM 1

CRN 1137945-38-0
CMF C34 H33 N3 O3

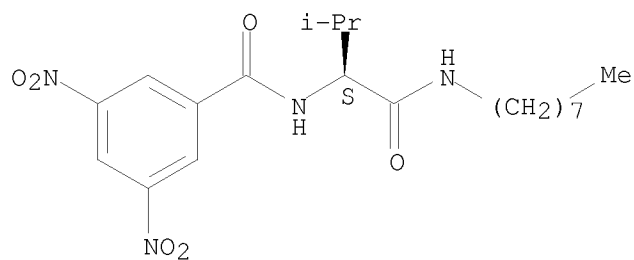


CM 2

CRN 169826-34-0

CMF C20 H30 N4 O6

Absolute stereochemistry.



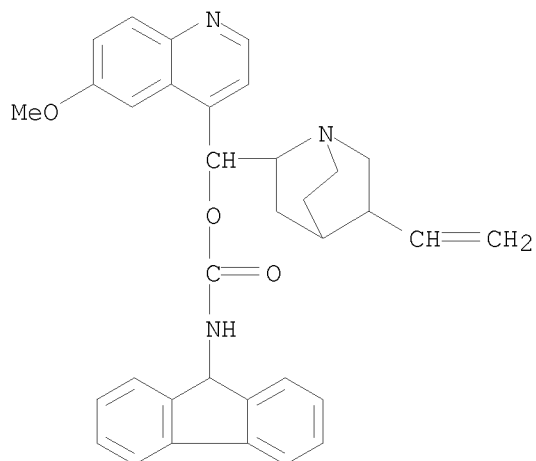
RN 1137945-96-0 CAPLUS

CN L-Phenylalanine, N-(2,2,2-trifluoroacetyl)-, compd. with
(8 α , 9R)-6'-methoxycinchonan-9-yl N-(9H-fluoren-9-yl)carbamate (1:1)
(CA INDEX NAME)

CM 1

CRN 1137945-38-0

CMF C34 H33 N3 O3

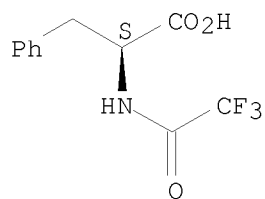


CM 2

CRN 350-09-4

CMF C11 H10 F3 N O3

Absolute stereochemistry.



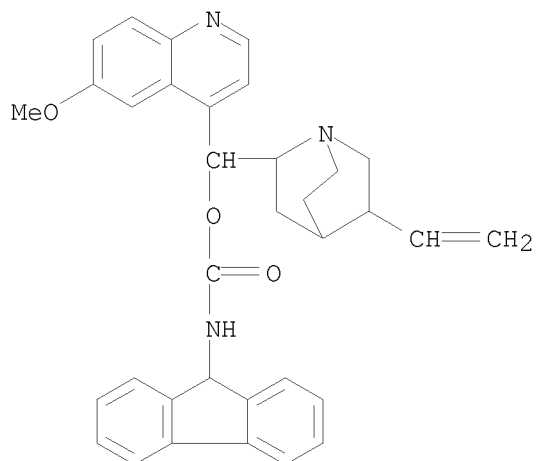
RN 1137946-02-1 CAPLUS

CN L-Leucine, N-(2,2,2-trifluoroacetyl)-, compd. with
(8 α ,9R)-6'-methoxycinchonan-9-yl N-(9H-fluoren-9-yl)carbamate (1:1)
(CA INDEX NAME)

CM 1

CRN 1137945-38-0

CMF C34 H33 N3 O3

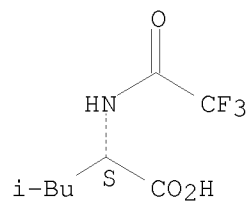


CM 2

CRN 1480-30-4

CMF C8 H12 F3 N O3

Absolute stereochemistry.



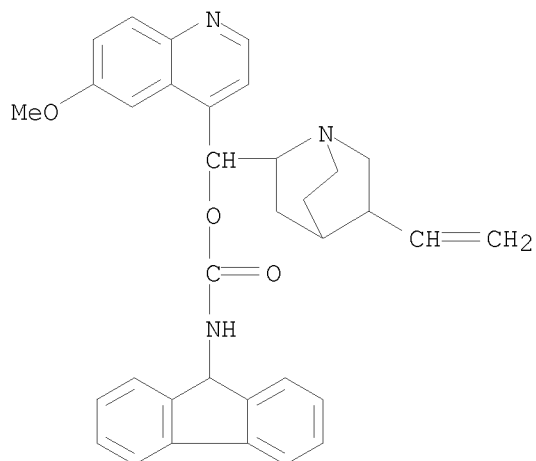
RN 1137946-13-4 CAPLUS

CN L-Methionine, N-(2,2,2-trifluoroacetyl)-, compd. with
(8 α ,9R)-6'-methoxycinchonan-9-yl N-(9H-fluoren-9-yl)carbamate (1:1)
(CA INDEX NAME)

CM 1

CRN 1137945-38-0

CMF C34 H33 N3 O3

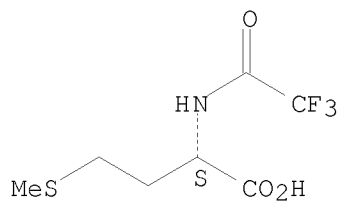


CM 2

CRN 2576-55-8

CMF C7 H10 F3 N O3 S

Absolute stereochemistry.



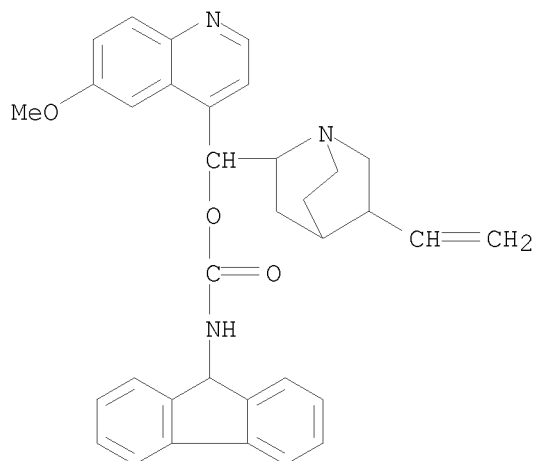
RN 1137946-30-5 CAPLUS

CN L-Alanine, N-(2,2,2-trifluoroacetyl)-, ethyl ester, compd. with
(8 α ,9R)-6'-methoxycinchonan-9-yl N-(9H-fluoren-9-yl)carbamate (1:1)
(CA INDEX NAME)

CM 1

CRN 1137945-38-0

CMF C34 H33 N3 O3

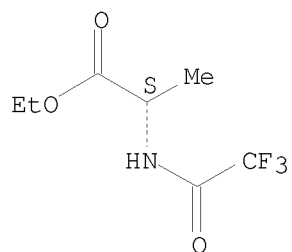


CM 2

CRN 155749-20-5

CMF C7 H10 F3 N O3

Absolute stereochemistry.

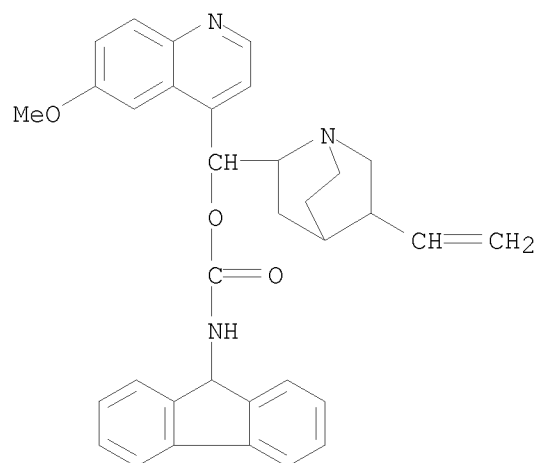


IT 1137945-38-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(in chiral shift reagent preparation; NMR enantiodiscrimination phenomena by
quinine C9-carbamates)

RN 1137945-38-0 CAPLUS

CN Cinchonan-9-ol, 6'-methoxy-, 9-[N-(9H-fluoren-9-yl)carbamate],
(8 α ,9R)- (CA INDEX NAME)



REFERENCE COUNT:

28

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1389610 CAPLUS

DOCUMENT NUMBER: 150:121822

TITLE: Directed lithiation on the quinuclidine ring system:
the synthesis of 2,3-difunctionalised quinuclidines

AUTHOR(S): O'Neil, Ian A.; Hitchin, James; Bhamra, Inder;
Chorlton, Alan P.; Tapolczay, David J.

CORPORATE SOURCE: Robert Robinson Laboratories, Department of Chemistry,
University of Liverpool, Liverpool, L69 7ZD, UK

SOURCE: Tetrahedron Letters (2008), 49(52), 7416-7418

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 150:121822

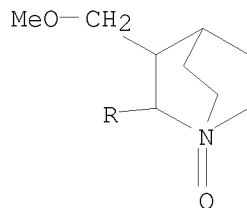
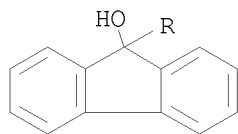
AB Lithiation of 3-(methoxymethyl)quinuclidine N-oxide occurs
regioselectively to generate the 2-lithio 3-methoxymethyl derivative, which
can be trapped out with non-enolizable electrophiles to give
2,3-disubstituted quinuclidine N-oxides in good yield.

IT 1097635-21-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of quinuclidines by directed lithiation)

RN 1097635-21-6 CAPLUS

CN 9H-Fluoren-9-ol, 9-[3-(methoxymethyl)-1-oxido-1-azabicyclo[2.2.2]oct-2-yl]-
(CA INDEX NAME)



REFERENCE COUNT:

22

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:487396 CAPLUS

DOCUMENT NUMBER: 150:162841

TITLE: Investigation of coenzyme Q biosynthesis in human fibroblast and HepG2 cells

AUTHOR(S): Tekle, Michael; Turunen, Mikael; Dallner, Gustav; Chojnacki, Tadeusz; Swiezewska, Ewa

CORPORATE SOURCE: Department of Biochemistry and Biophysics, Stockholm University, Stockholm, Swed.

SOURCE: Journal of Biochemical and Biophysical Methods (2008), 70(6), 909-917

CODEN: JBBMDG; ISSN: 0165-022X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Coenzyme Q (CoQ) deficiency occurs in genetic disorders, during aging and various diseases. Diagnosis requires skin fibroblasts in tissue culture. [3H]Mevalonate incorporation was appropriate to measure the rate of CoQ synthesis in fibroblasts and hepatoblastoma cells. [14C]p-Hydroxybenzoate had limited permeability, but it could be increased with Eugene and cyclodextrin. Inhibition of decaprenyl-4-hydroxybenzoatetransferase results in the accumulation of decaprenyl diphosphate, an indicator of enzyme deficiency. Also, anal. of the corresponding mRNAs in this case is useful. In vitro assays to measure trans-prenyltransferase and decaprenyl-4-hydroxybenzoatetransferase activities are not available. Neither measurement of methyltransferases is reliable in human cells. In vitro reconstruction of CoQ synthesis, in opposite to cholesterol synthesis, proved to be unsuccessful. Thus, the biochem. characterization of the CoQ biosynthetic system in human cells is restricted to a few reliable anal. procedures.

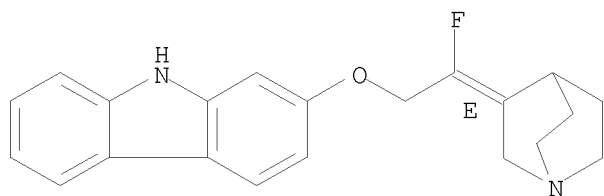
IT 182959-33-7, YM-53601

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(coenzyme Q biosynthesis in human fibroblast and HepG2 cells)

RN 182959-33-7 CAPLUS

CN 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

Double bond geometry as shown.



● HCl

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:533750 CAPLUS

DOCUMENT NUMBER: 146:502264

TITLE: Photosensitive polymer compositions with high contrast in development and articles having them

INVENTOR(S): Sakayori, Katsuya; Fukuda, Shunji

PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2007119766 | A | 20070517 | JP 2006-266499 | 20060929 |
| PRIORITY APPLN. INFO.: | | | JP 2005-288763 | A 20050930 |

OTHER SOURCE(S): MARPAT 146:502264

AB The compns., useful for coatings, inks, color filters, etc., contain polymer precursors and ammonium compds. decomposing by absorption of electromagnetic waves and releasing lower-mol.-weight amines. Thus, a composition comprising 400 mg 4,4'-diaminodiphenyl ether-pyromellitic dianhydride polyimide precursor, 200 mg ammonium compound having absorption band at 254 nm prepared from 9-bromofluorene and quinuclidine, and NMP was applied on glass, dried, irradiated with UV, immersing in tetramethylammonium hydroxide solution, and imidized to give patterns of exposed areas.

IT 405113-63-5P 936539-22-9P 936539-23-0P

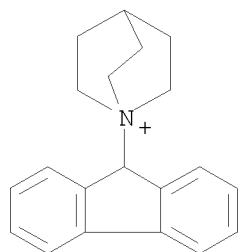
936539-24-1P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(photobase generator; photobase generator-containing photosensitive polymer compns. with high contrast in development)

RN 405113-63-5 CAPLUS

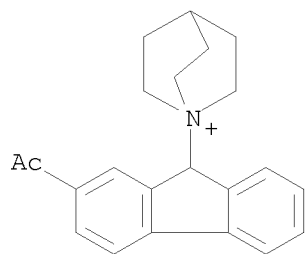
CN 1-Azoniabicyclo[2.2.2]octane, 1-(9H-fluoren-9-yl)-, bromide (1:1) (CA INDEX NAME)



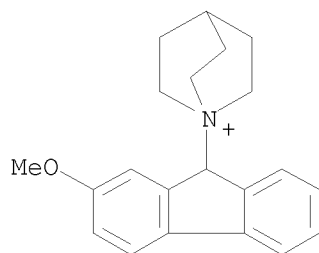
● Br⁻

RN 936539-22-9 CAPLUS

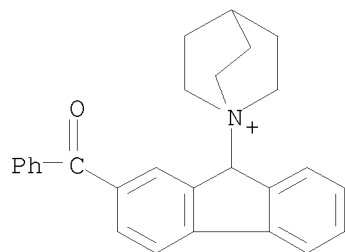
CN 1-Azoniabicyclo[2.2.2]octane, 1-(2-acetyl-9H-fluoren-9-yl)-, bromide (1:1) (CA INDEX NAME)



RN 936539-23-0 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 1-(2-methoxy-9H-fluoren-9-yl)-, bromide
 (1:1) (CA INDEX NAME)



RN 936539-24-1 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 1-(2-benzoyl-9H-fluoren-9-yl)-, bromide
 (1:1) (CA INDEX NAME)



L3 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1090228 CAPLUS
DOCUMENT NUMBER: 146:54693
TITLE: Bridging chemical and biological space: "Target Fishing" using two- and three-dimensional molecular descriptors
AUTHOR(S): Nettles, James H.; Jenkins, Jeremy L.; Bender, Andreas; Deng, Zhan; Davies, John W.; Glick, Meir
CORPORATE SOURCE: Lead Discovery Informatics, Lead Discovery Center, Novartis Institutes for BioMedical Research Inc., Cambridge, MA, 02139, USA
SOURCE: Journal of Medicinal Chemistry (2006), 49(23), 6802-6810
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Bridging chemical and biol. space is the key to drug discovery and development. Typically, cheminformatics methods operate under the assumption that similar chems. have similar biol. activity. Ideally then, one could predict a drug's biol. function(s) given only its chemical structure by similarity searching in libraries of compds. with known activities. In practice, effectively choosing a similarity metric is case dependent. This work compares both two- and three-dimensional (2D) (3D) chemical descriptors as tools for predicting the biol. targets of ligand probes, on the basis of their similarity to reference mols. in a 46,000 compound,

biol. annotated chemical database. Overall, we found that the 2D methods employed here outperform the 3D (88% vs. 67% success) in correct target prediction. However, the 3D descriptors proved superior in cases of probes with low structural similarity to other compds. in the database (singletons). Addnl., the 3D method (FEPOPS) shows promise for providing pharmacophoric alignment of the small mols.' chemical features consistent with those seen in exptl. ligand/ receptor complexes. These results suggest that querying annotated chemical databases with a systematic combination of both 2D and 3D descriptors will prove more effective than employing single methods.

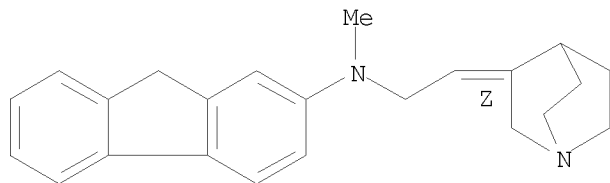
IT 591733-19-6 654083-83-7 768357-66-0

RL: PAC (Pharmacological activity); BIOL (Biological study)
(bridging chemical and biol. space using two- and three-dimensional mol. descriptors)

RN 591733-19-6 CAPLUS

CN 9H-Fluoren-2-amine, N-[2-(2Z)-1-azabicyclo[2.2.2]oct-3-ylideneethyl]-N-methyl- (CA INDEX NAME)

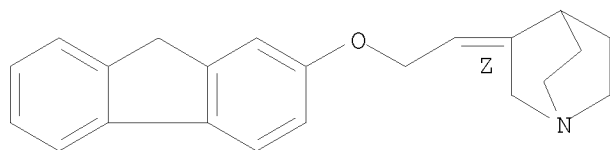
Double bond geometry as shown.



RN 654083-83-7 CAPLUS

CN 1-Azabicyclo[2.2.2]octane, 3-[2-(9H-fluoren-2-yloxy)ethylidene]-, (3Z)- (CA INDEX NAME)

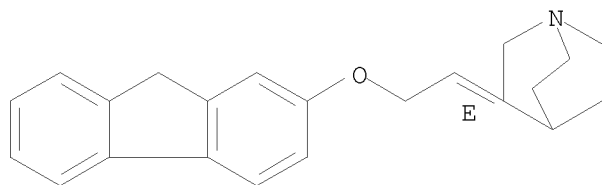
Double bond geometry as shown.



RN 768357-66-0 CAPLUS

CN 1-Azabicyclo[2.2.2]octane, 3-[2-(9H-fluoren-2-yloxy)ethylidene]-, (3E)-
(CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT:

54

THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:437481 CAPLUS
DOCUMENT NUMBER: 144:468354
TITLE: Preparation of quinuclidine derivatives as muscarinic
M3 receptor antagonists
INVENTOR(S): Press, Neil John; Collingwood, Stephen Paul; Baettig,
Urs; Cox, Brian; Garad, Sudhakar Devidasrao; Kim,
Hyungchul; Papoutsakis, Dimitris; Watson, Simon James
PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|----------------------------------------|------------|
| WO 2006048225 | A1 | 20060511 | WO 2005-EP11662 | 20051031 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| AU 2005300710 | A1 | 20060511 | AU 2005-300710 | 20051031 |
| CA 2583237 | A1 | 20060511 | CA 2005-2583237 | 20051031 |
| EP 1811999 | A1 | 20070801 | EP 2005-798470 | 20051031 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR | | | | |
| CN 101056634 | A | 20071017 | CN 2005-80038067 | 20051031 |
| JP 2008518890 | T | 20080605 | JP 2007-538352 | 20051031 |
| BR 2005017945 | A | 20081021 | BR 2005-17945 | 20051031 |
| IN 2007DN02750 | A | 20070803 | IN 2007-DN2750 | 20070412 |
| MX 2007005189 | A | 20070511 | MX 2007-5189 | 20070430 |
| NO 2007002371 | A | 20070712 | NO 2007-2371 | 20070508 |
| US 20090048281 | A1 | 20090219 | US 2008-577417 | 20080610 |
| PRIORITY APPLN. INFO.: | | | GB 2004-24284 | A 20041102 |
| | | | WO 2005-EP11662 | W 20051031 |
| OTHER SOURCE(S): | | | CASREACT 144:468354; MARPAT 144:468354 | |
| GI | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; when R1, R2 = independently (un)substituted Ph, R3 = H, alkoxy, OH, alkyl, alkylthio; or R1 = R2 = Ph, and R3 = H, alkyl, alkoxy, alkylthio; or R1 = cycloalkyl, 4- to 6-membered heterocycle containing ≥ 1 N, O, S, R2 = (un)substituted Ph, and R3 = H, OH, alkyl, alkoxy, alkylthio; or CR1R2R3 = 9-hydroxy/9H-fluoren-9-yl, 9H-xanthen-9-yl, etc., and R4 = alkyl substituted at 1-3 positions by CON(R5)R6 where R5 = H, alkyl, and R6 = 4- to 6-membered heterocyclyl; or R1 = R2 = Ph, R3 = OH, and R4 = alkyl, substituted at 1-3 positions by CON(R5)R6 where R6 = 5-methyl-3-isoxazolyl; or R1 = R2 = Ph, R3 = OH, and

R4 = 1-Et substituted at 1-3 positions by CON(R5)R6 where R6 = 4- to 6-membered heterocyclyl; with the exception of specified compds.], in salt or zwitterionic form, were prepared as muscarinic M3 receptor antagonists (data) for treatment inflammatory or obstructive airways diseases (no data). Thus, II•Br⁻ was prepared in 3 steps from bromoacetyl bromide and 3-aminoisoxazole (no data for intermediates). In a competitive filtration binding assay, I had K_i values < 1 μM at the human muscarinic acetylcholine M3 receptor.

IT 886490-66-0P 886490-98-8P 886491-22-1P
 886491-23-2P 886491-43-6P 886491-44-7P
 886491-73-2P 886491-79-8P 886491-87-8P
 886492-05-3P 886492-13-3P 886492-31-5P
 886492-48-4P 886492-54-2P 886492-67-7P
 886492-89-3P

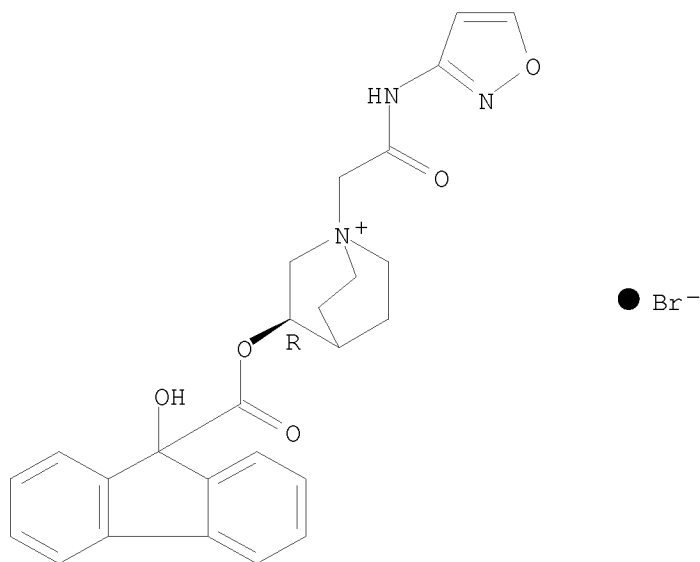
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of quinuclidine derivs. as muscarinic M3 receptor antagonists)

RN 886490-66-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-[2-(3-isoxazolylamino)-2-oxoethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

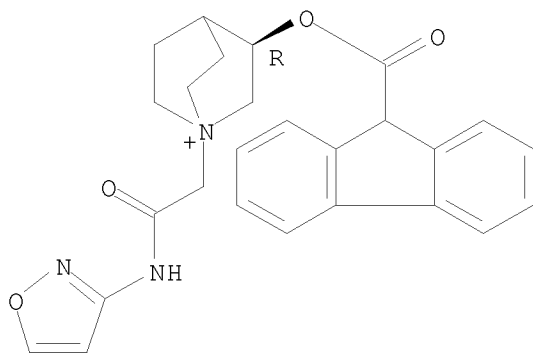
Absolute stereochemistry.



RN 886490-98-8 CAPLUS

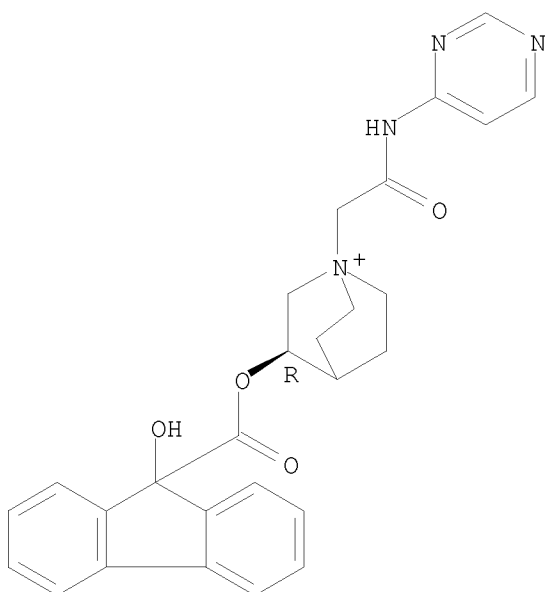
CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[2-(3-isoxazolylamino)-2-oxoethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



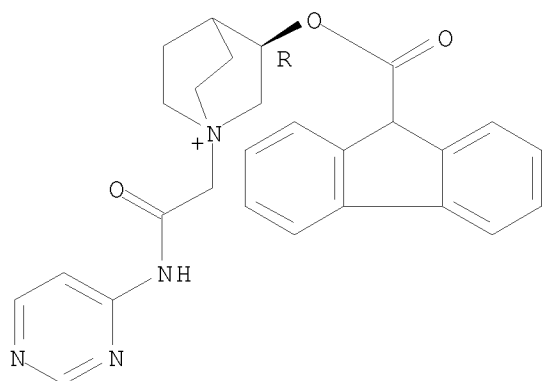
RN 886491-22-1 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-[2-oxo-2-(4-pyrimidinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



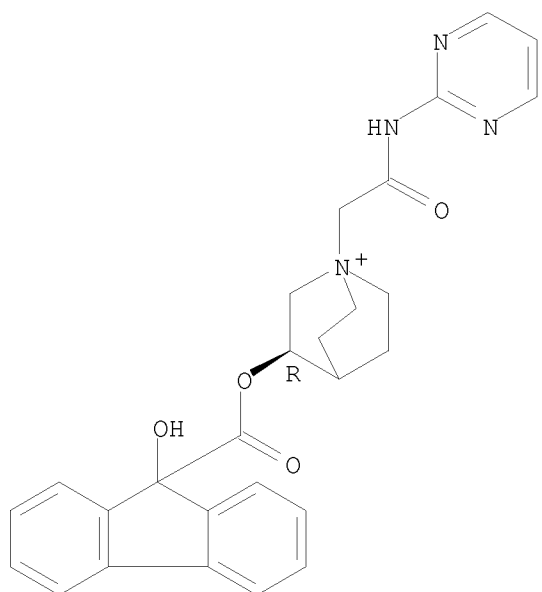
RN 886491-23-2 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[2-oxo-2-(4-pyrimidinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



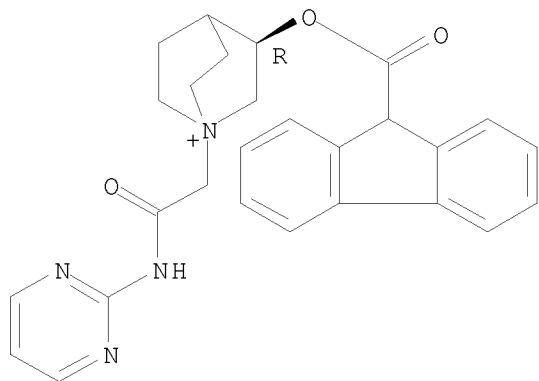
RN 886491-43-6 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-[2-oxo-2-(2-pyrimidinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 886491-44-7 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[2-oxo-2-(2-pyrimidinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

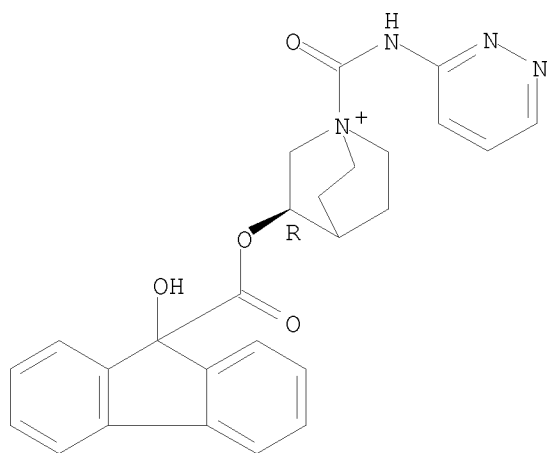
Absolute stereochemistry.



RN 886491-73-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-[(3-pyridazinylamino)carbonyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

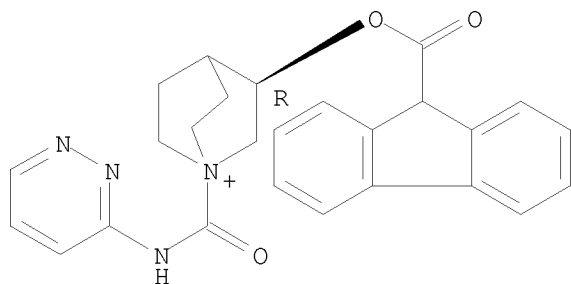
Absolute stereochemistry.



RN 886491-79-8 CAPLUS

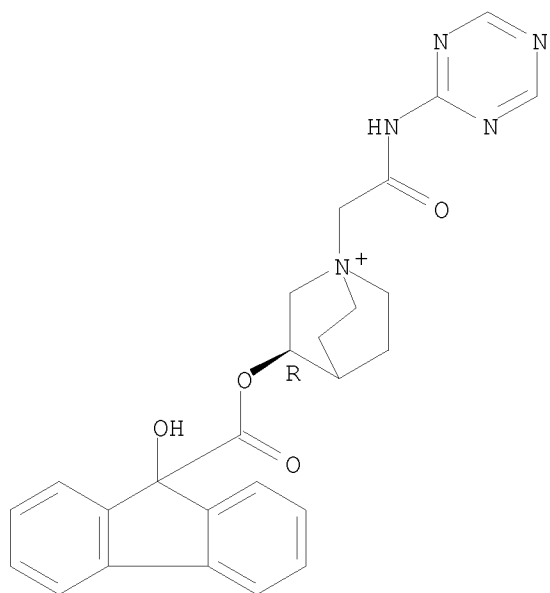
CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[(3-pyridazinylamino)carbonyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



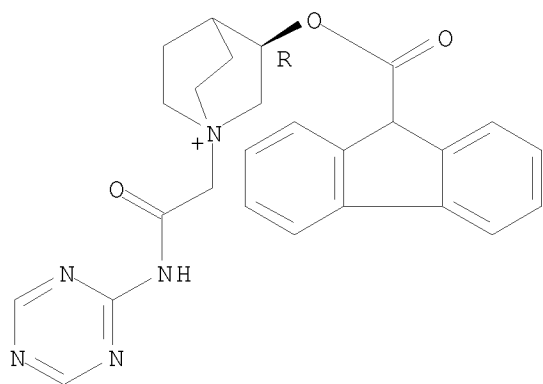
RN 886491-87-8 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-[2-oxo-2-(1,3,5-triazin-2-ylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



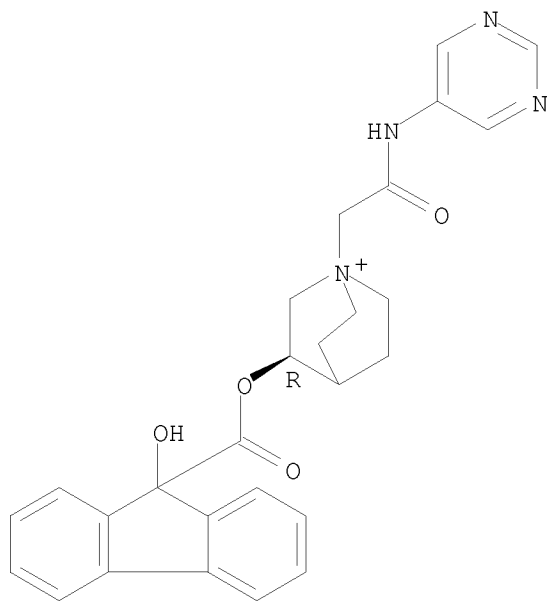
RN 886492-05-3 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[2-oxo-2-(1,3,5-triazin-2-ylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



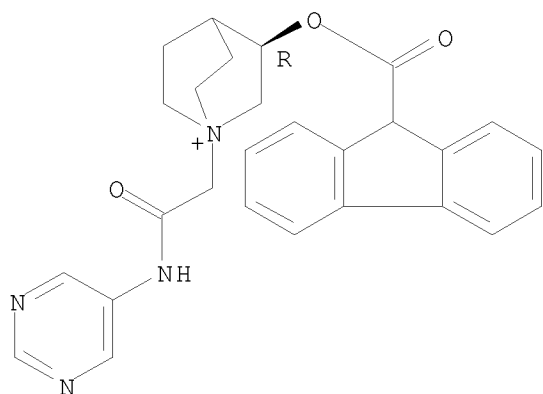
RN 886492-13-3 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[9-hydroxy-9H-fluoren-9-yl]carbonyl]oxy]-1-[2-oxo-2-(5-pyrimidinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



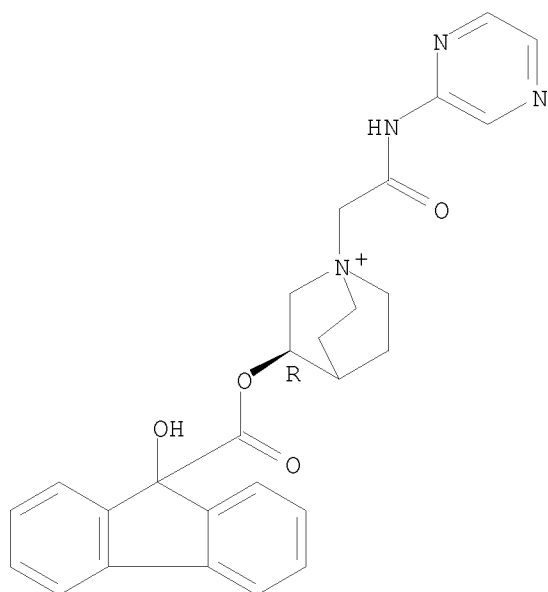
RN 886492-31-5 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[2-oxo-2-(5-pyrimidinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



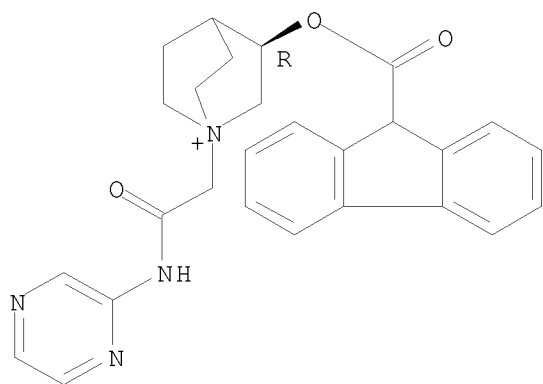
RN 886492-48-4 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl]carbonyl]oxy]-1-[2-oxo-2-(2-pyrazinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



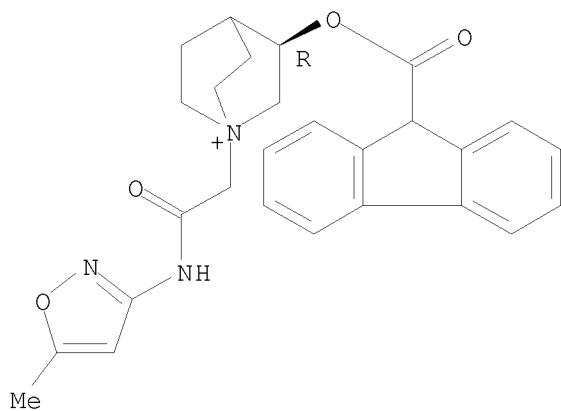
RN 886492-54-2 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[2-oxo-2-(2-pyrazinylamino)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



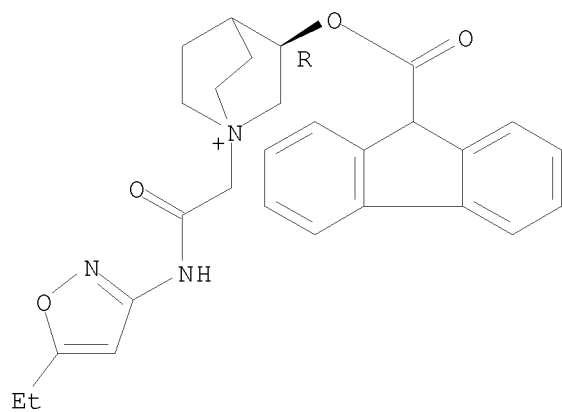
RN 886492-67-7 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[(9H-fluoren-9-ylcarbonyl)oxy]-1-[2-[(5-methyl-3-isoxazolyl)amino]-2-oxoethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 886492-89-3 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 1-[2-[(5-ethyl-3-isoxazolyl)amino]-2-oxoethyl]-3-[(9H-fluoren-9-ylcarbonyl)oxy]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



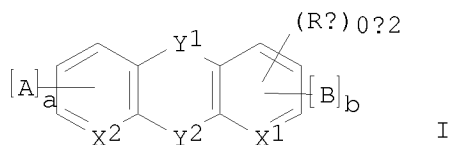
REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2005:1132908 CAPLUS
 DOCUMENT NUMBER: 143:405799
 TITLE: Preparation of amino-substituted tricyclic derivatives as modulators of $\alpha 7$ nicotinic receptors and methods of use
 INVENTOR(S): Schrimpf, Michael R.; Sippy, Kevin B.; Ji, Jianguo; Li, Tao; Frost, Jennifer M.; Briggs, Clark A.; Bunnelle, William H.
 PATENT ASSIGNEE(S): Abbott Laboratories, USA
 SOURCE: U.S. Pat. Appl. Publ., 90 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|----------------------------------------|----------|-----------------|-------------|
| US 20050234031 | A1 | 20051020 | US 2005-51437 | 20050204 |
| US 7365193 | B2 | 20080429 | | |
| US 20080161281 | A1 | 20080703 | US 2008-46599 | 20080312 |
| PRIORITY APPLN. INFO.: | | | US 2004-541651P | P 20040204 |
| | | | US 2005-51437 | A1 20050204 |
| OTHER SOURCE(S): | CASREACT 143:405799; MARPAT 143:405799 | | | |
| GI | | | | |



- AB The title compds. I [A and B = H, halo, alkoxy, amino, etc.; X1, X2 = C, CH, N; provided that when one of X1 and X2 = N, the other + C or CH; Y1 = C(O), CH2, CH(OH), C(S), etc.; Y2 is a bond or Y2 = O, S, and N(R12); R12 = H, alkyl; Rx = H, halo, alkoxy, amino, alkylamino, dialkylamino, acylamino, dialkylaminoalkyl, and cyano; a = 0-1; b = 0-1; provided that when one of a and b = 0, the other = 1] and compns. containing I are contemplated as well as methods for treating conditions or disorders prevented by or ameliorated by $\alpha 7$ nAChR ligands that encompass compds. I and other tricyclic derivs. Compds. I had K_i values of from .apprx.1 nM to .apprx.10 μ M when tested by the [3H]-methyllycaconitine binding assay, many having a K_i of <1 μ M. (3H)-Cytisine binding values of I ranged from .apprx.50 nM to at least 100 μ M. Preferred compds. typically exhibited greater potency at $\alpha 7$ receptors compared to $\alpha 4\beta 2$ receptors. Although the methods of preparation are not claimed, 67 example preps. are included. For example, 2,7-bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one di-p-toluenesulfonate was prepared in 4 steps (54, 89, 26 and 74 % yields) starting from 2,7-dihydroxyfluoren-9-one, (2R)-(+)-1-Boc-2-pyrrolidinemethanol and involving intermediates 2,7-bis[((2R)-1-Boc-pyrrolidin-2-yl)methoxy]fluoren-9-one, 2,7-bis[((2R)-pyrrolidin-2-yl)methoxy]fluoren-9-one, and 2,7-bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one.
- IT 861118-25-4P, 2-[[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-29-8P, 2-[[[(3S)-1-Azabicyclo[2.2.2]octan-3-

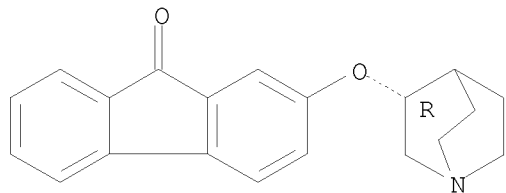
yl]oxy]fluoren-9-one

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of $\alpha 7$ nicotinic receptors and methods of use)

RN 861118-25-4 CAPLUS

CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

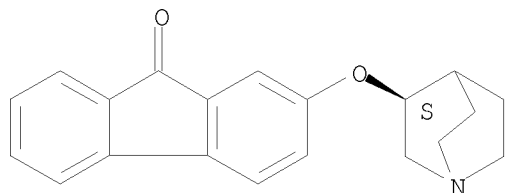
Absolute stereochemistry.



RN 861118-29-8 CAPLUS

CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



IT 861118-28-7P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one p-toluenesulfonate 861118-30-1P,

2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one fumarate

861118-93-6P, 2-[(1-Azabicyclo[2.2.2]octan-3-yl)oxy]-9H-carbazole

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of $\alpha 7$ nicotinic receptors and methods of use)

RN 861118-28-7 CAPLUS

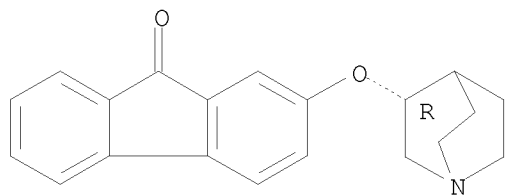
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 861118-25-4

CMF C20 H19 N O2

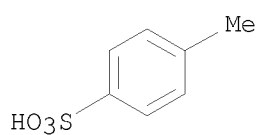
Absolute stereochemistry.



CM 2

CRN 104-15-4

CMF C7 H8 O3 S



RN 861118-30-1 CAPLUS

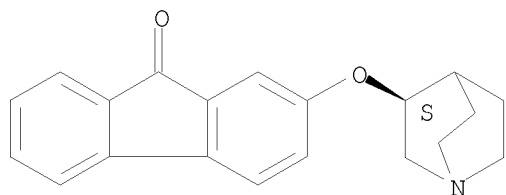
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 861118-29-8

CMF C20 H19 N O2

Absolute stereochemistry.

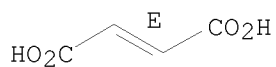


CM 2

CRN 110-17-8

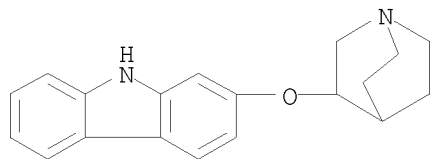
CMF C4 H4 O4

Double bond geometry as shown.

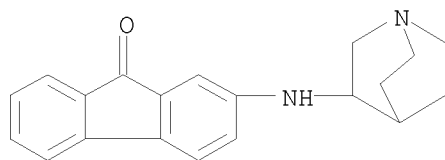


RN 861118-93-6 CAPLUS

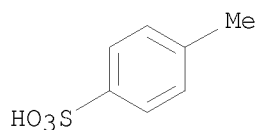
CN 9H-Carbazole, 2-(1-azabicyclo[2.2.2]oct-3-yloxy)- (CA INDEX NAME)



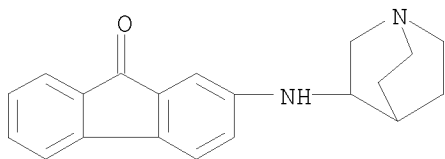
IT 867373-89-5P
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of amino-substituted tricyclic derivs. as modulators of $\alpha 7$ nicotinic receptors and methods of use)
 RN 867373-89-5 CAPLUS
 CN 9H-Fluoren-9-one, 2-(1-azabicyclo[2.2.2]oct-3-ylamino)-, 4-methylbenzenesulfonate (1:2) (CA INDEX NAME)
 CM 1
 CRN 867373-88-4
 CMF C20 H20 N2 O



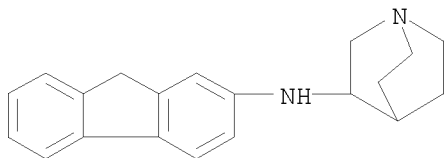
CM 2
 CRN 104-15-4
 CMF C7 H8 O3 S



IT 867373-88-4P 867373-99-7P 867374-00-3P
 867374-01-4P 867374-02-5P 867374-03-6P
 867374-04-7P 867374-05-8P 867374-06-9P
 867374-07-0P 867374-65-0P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of amino-substituted tricyclic derivs. as modulators of $\alpha 7$ nicotinic receptors and methods of use)
 RN 867373-88-4 CAPLUS
 CN 9H-Fluoren-9-one, 2-(1-azabicyclo[2.2.2]oct-3-ylamino)- (CA INDEX NAME)



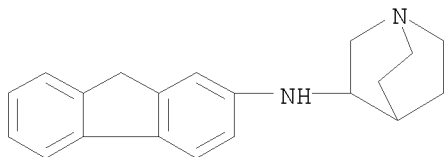
RN 867373-99-7 CAPLUS
 CN 1-Azabicyclo[2.2.2]octan-3-amine, N-9H-fluoren-2-yl- (CA INDEX NAME)



RN 867374-00-3 CAPLUS
 CN 1-Azabicyclo[2.2.2]octan-3-amine, N-9H-fluoren-2-yl-,
 4-methylbenzenesulfonate (1:2) (CA INDEX NAME)

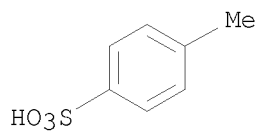
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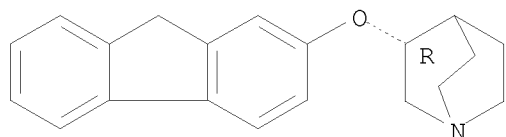
CM 2

CRN 104-15-4
 CMF C7 H8 O3 S



RN 867374-01-4 CAPLUS
 CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, hydrochloride (1:1),
 (3R)- (CA INDEX NAME)

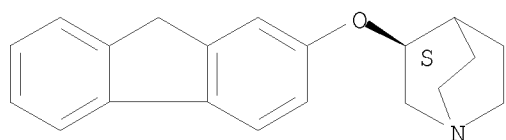
Absolute stereochemistry.



● HCl

RN 867374-02-5 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, hydrochloride (1:1), (3S)- (CA INDEX NAME)

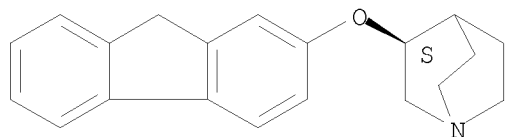
Absolute stereochemistry.



● HCl

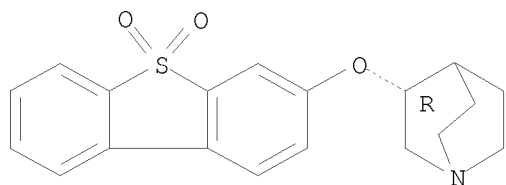
RN 867374-03-6 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 867374-04-7 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothiienyl)oxy]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

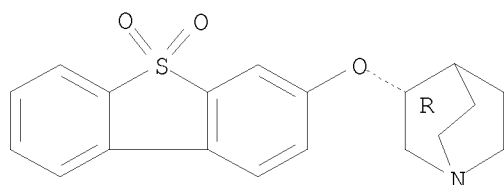


RN 867374-05-8 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothiienyl)oxy]-, (3R)-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

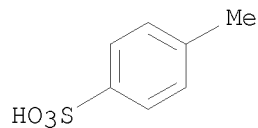
CRN 867374-04-7
CMF C19 H19 N O3 S

Absolute stereochemistry.



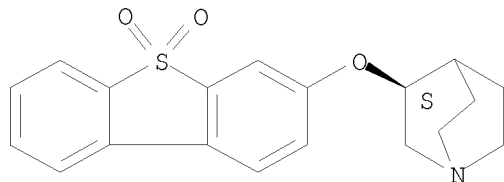
CM 2

CRN 104-15-4
CMF C7 H8 O3 S



RN 867374-06-9 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothiophenyl)oxy]-, (3S)-
(CA INDEX NAME)

Absolute stereochemistry.

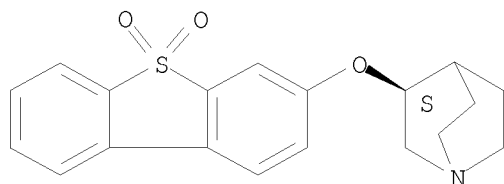


RN 867374-07-0 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothiophenyl)oxy]-, (3S)-,
4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 867374-06-9
CMF C19 H19 N O3 S

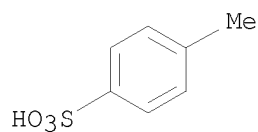
Absolute stereochemistry.



CM 2

CRN 104-15-4

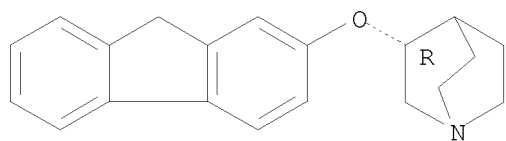
CMF C7 H8 O3 S



RN 867374-65-0 CAPLUS

CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 867374-48-9P

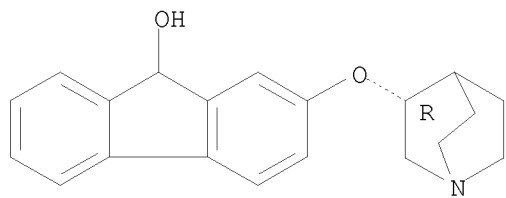
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of amino-substituted tricyclic derivs. as modulators of $\alpha 7$ nicotinic receptors and methods of use)

RN 867374-48-9 CAPLUS

CN 9H-Fluoren-9-ol, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

111

THERE ARE 111 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L3 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1042242 CAPLUS

DOCUMENT NUMBER: 143:326495

TITLE: Preparation of quaternized quinuclidine esters as antimuscarinic agents

INVENTOR(S): Fernandez Forner, Maria Dolores; Prat Quinones, Maria; Buil Albero, Maria Antonia

PATENT ASSIGNEE(S): Almirall Prodesfarma, S. A., Spain

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

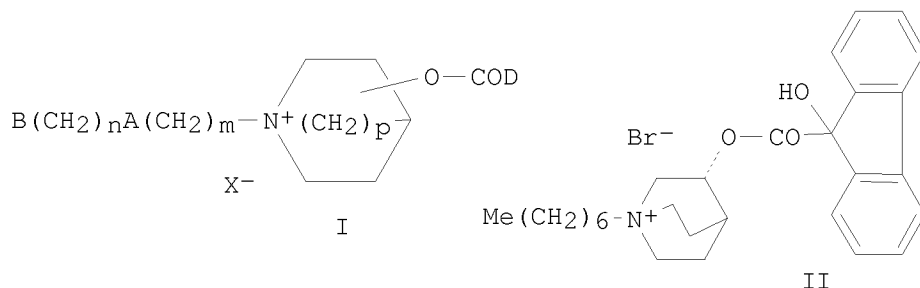
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| WO 2005090342 | A1 | 20050929 | WO 2005-EP2523 | 20050310 |
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| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| ES 2239546 | A1 | 20050916 | ES 2004-638 | 20040315 |
| ES 2239546 | B1 | 20061201 | | |
| AU 2005223310 | A1 | 20050929 | AU 2005-223310 | 20050310 |
| CA 2560157 | A1 | 20050929 | CA 2005-2560157 | 20050310 |
| EP 1725552 | A1 | 20061129 | EP 2005-729711 | 20050310 |
| EP 1725552 | B1 | 20080625 | | |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU | | | | |
| CN 1930158 | A | 20070314 | CN 2005-80008236 | 20050310 |
| BR 2005008177 | A | 20070807 | BR 2005-8177 | 20050310 |
| JP 2007529444 | T | 20071025 | JP 2007-503242 | 20050310 |
| AT 399166 | T | 20080715 | AT 2005-729711 | 20050310 |
| ES 2307168 | T3 | 20081116 | ES 2005-729711 | 20050310 |
| MX 2006009832 | A | 20061116 | MX 2006-9832 | 20060829 |
| KR 2007003940 | A | 20070105 | KR 2006-718902 | 20060914 |
| NO 2006004659 | A | 20061213 | NO 2006-4659 | 20061013 |
| US 20080214600 | A1 | 20080904 | US 2008-592787 | 20080320 |
| PRIORITY APPLN. INFO.: | | | ES 2004-638 | A 20040315 |
| | | | WO 2005-EP2523 | W 20050310 |
| OTHER SOURCE(S): | | | CASREACT 143:326495; MARPAT 143:326495 | |
| GI | | | | |



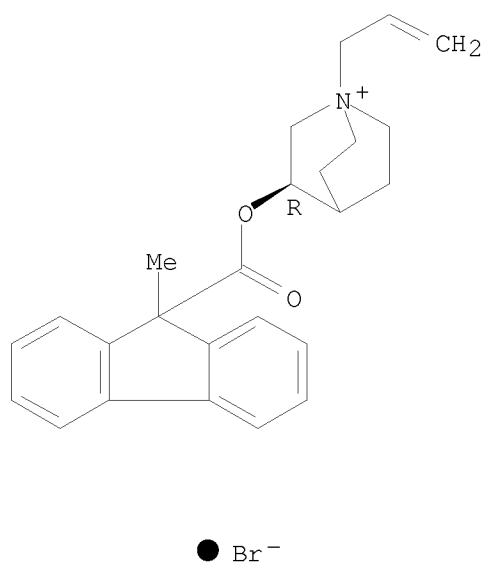
AB Quaternized esters of formula I [A = CH₂, (substituted) CH=CH, O, CO, etc.; B = H, OH, alkyl, alkoxy, acyl, etc.; D = CR₁R₂R₃, (substituted) tricyclic group; R₁-R₃ = H, Ph, thienyl, furyl, cycloalkyl, Me, OH, CH₂OH, etc.; X = anion of mono or polyvalent acid; n = 0-4; m = 0-8; p = 1-2] are prepared the treatment of respiratory, urol. or gastrointestinal disorders or diseases. The invention also relates to a process for their preparation, to pharmaceutical compns. comprising them, as well as to combinations with other compds. which are active in the treatment of respiratory, urol. or gastrointestinal disorders or diseases. Thus, II was prepared from 1-bromoheptane and 9-hydroxy-9H-fluorene-9-carboxylic acid (3R)-1-azabicyclo[2.2.2]oct-3-yl ester (preparation given) in 85.5% yield.

IT 865377-98-6P 865377-99-7P 865378-00-3P
865378-01-4P 865378-02-5P 865378-03-6P
865378-04-7P 865378-35-4P 865378-36-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of quaternized quinuclidine esters as antimuscarinic agents)

RN 865377-98-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-1-(2-propen-1-yl)-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.

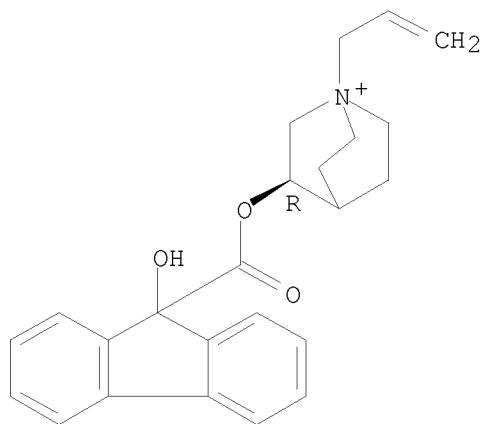


RN 865377-99-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-

1-(2-propen-1-yl)-, bromide (1:1), (3R)- (CA INDEX NAME)

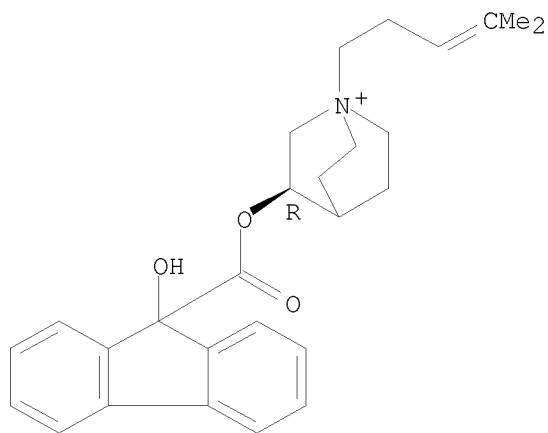
Absolute stereochemistry.



RN 865378-00-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[9-hydroxy-9H-fluoren-9-yl]carbonyl]oxy]-1-(4-methyl-3-penten-1-yl)-, bromide (1:1), (3R)- (CA INDEX NAME)

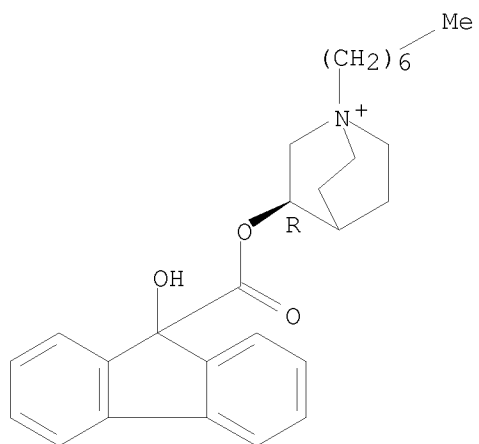
Absolute stereochemistry.



RN 865378-01-4 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-heptyl-3-[[9-hydroxy-9H-fluoren-9-yl]carbonyl]oxy]-, bromide (1:1), (3R)- (CA INDEX NAME)

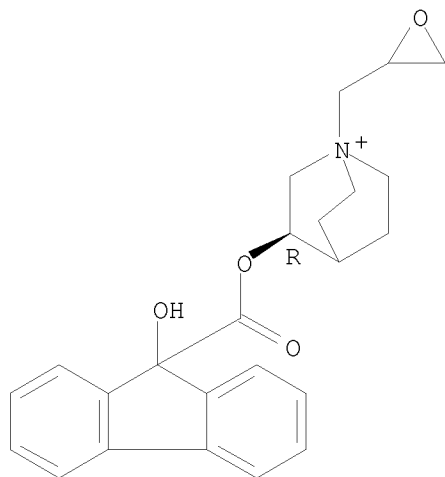
Absolute stereochemistry.



RN 865378-02-5 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(2-oxiranylmethyl)-, bromide (1:1), (3R)- (CA INDEX NAME)

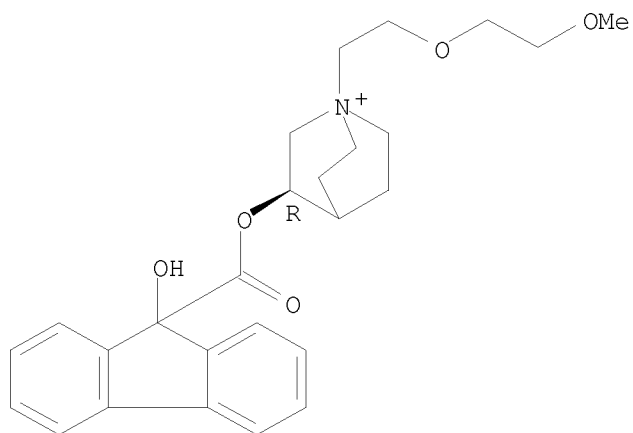
Absolute stereochemistry.



RN 865378-03-6 CAPLUS

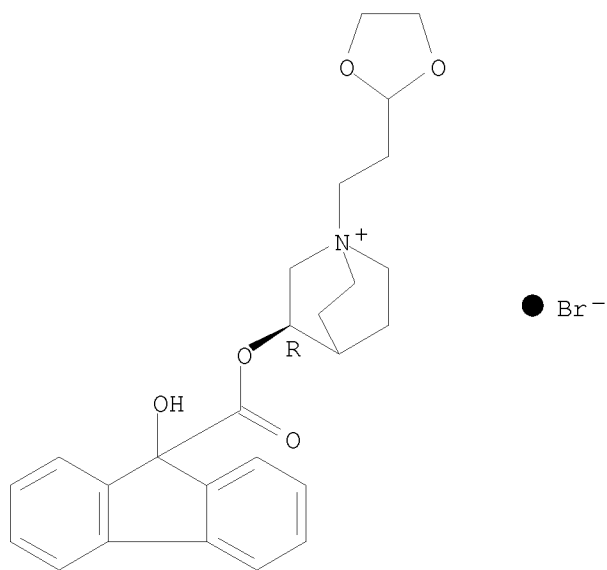
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-[2-(2-methoxyethoxy)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



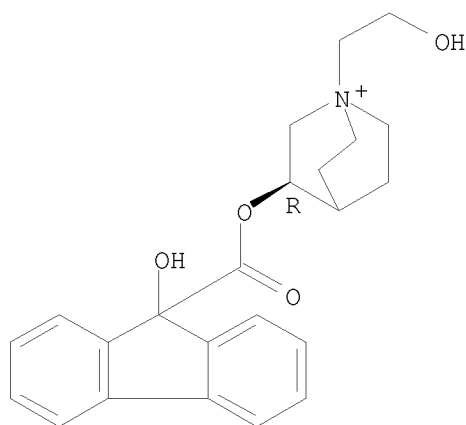
RN 865378-04-7 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 1-[2-(1,3-dioxolan-2-yl)ethyl]-3-[[9-hydroxy-9H-fluoren-9-yl]carbonyl]oxy]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 865378-35-4 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 1-(2-hydroxyethyl)-3-[[9-hydroxy-9H-fluoren-9-yl]carbonyl]oxy]-, bromide (1:1), (3R)- (CA INDEX NAME)

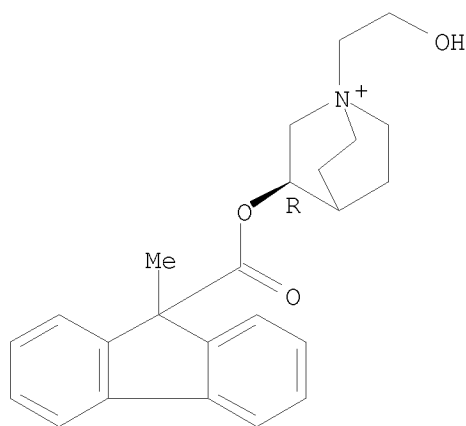
Absolute stereochemistry.



RN 865378-36-5 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(2-hydroxyethyl)-3-[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 221671-34-7P 320348-02-5P

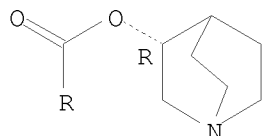
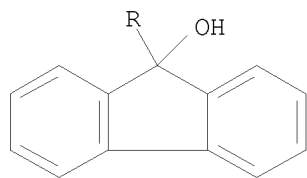
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of quaternized quinuclidine esters as antimuscarinic agents)

RN 221671-34-7 CAPLUS

CN 9H-Fluorene-9-carboxylic acid, 9-hydroxy-, (3R)-1-azabicyclo[2.2.2]oct-3-yl ester (CA INDEX NAME)

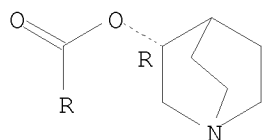
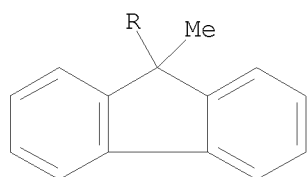
Absolute stereochemistry.



RN 320348-02-5 CAPLUS

CN 9H-Fluorene-9-carboxylic acid, 9-methyl-, (3R)-1-azabicyclo[2.2.2]oct-3-yl ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:698355 CAPLUS

DOCUMENT NUMBER: 143:172757

TITLE: Preparation of amino-substituted tricyclic derivatives as modulators of $\alpha 7$ nicotinic receptors and methods of use

INVENTOR(S): Schrimpf, Michael R.; Sippy, Kevin B.; Ji, Jianguo; Li, Tao; Pace, Jennifer M.; Briggs, Clark A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 67 pp.

CODEN: USXXCO

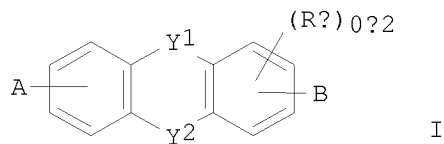
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| US 20050171079 | A1 | 20050804 | US 2004-772192 | 20040204 |
| CA 2555884 | A1 | 20050825 | CA 2005-2555884 | 20050204 |
| WO 2005077899 | A2 | 20050825 | WO 2005-US3578 | 20050204 |
| WO 2005077899 | A3 | 20051201 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, | | | SM |
| RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1711463 | A2 | 20061018 | EP 2005-712865 | 20050204 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS | | | |
| JP 2007523899 | T | 20070823 | JP 2006-552264 | 20050204 |
| MX 2006008817 | A | 20061106 | MX 2006-8817 | 20060803 |
| PRIORITY APPLN. INFO.: | | | US 2004-772192 | A 20040204 |
| | | | WO 2005-US3578 | W 20050204 |
| OTHER SOURCE(S): | CASREACT 143:172757; MARPAT 143:172757 | | | |
| GI | | | | |



AB Amino-substituted tricyclic derivs. (shown as I; variables defined below; e.g. 2,7-Bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one di-p-toluenesulfonate (II)) and compns. containing I are contemplated as well as methods for treating conditions or disorders prevented by or ameliorated by $\alpha 7$ nAChR ligands that encompass compds. I and other tricyclic derivs. Compds. I had K_i values of from .apprx.1 nM to .apprx.10 μ M when tested by the [3H]-methyllycaconitine binding assay, many having a K_i of <1 μ M. (3H)-Cytisine binding values of I ranged from .apprx.50 nM to at least 100 μ M. Preferred compds. typically exhibited greater potency at $\alpha 7$ receptors compared to

$\alpha 4\beta 2$ receptors. For I: A and B = H, halogen, alkoxy, amino, alkylamino, acylamino, dialkylamino, cyano, nitro, and $-SO_3H$, $-C.tplbond.CCH_2NR_7R_8$ and $-O-[C(R_{20})_2-3N(R_{21})(R_{22})]$, et al.; Y1 = $-C(O)-$, $-CH_2-$, $-CH(OH)-$, $-C(S)-$, $-N(R_{11})-$, $-O-$, $-S-$, $-S(O)-$, $-S(O)_2-$, $-C(O)NH-$, and $-S(O)_2NH-$; Y2 is a bond or Y2 = $-O-$, $-S-$, and $-N(R_{12})-$; Rx = H, halogen, alkoxy, amino, alkylamino, dialkylamino, acylamino, dialkylaminoalkyl, and cyano; addnl. details including provisos are given in the claims. Although the methods of preparation are not claimed, 22 example preps. are included. For example, II was prepared in 4 steps (54, 89, 26 and 74 % yields) starting from 2,7-dihydroxyfluoren-9-one, (2R)-(+)-1-Boc-2-pyrrolidinemethanol and involving intermediates 2,7-bis[((2R)-1-Boc-pyrrolidin-2-yl)methoxy]fluoren-9-one, 2,7-bis[((2R)-pyrrolidin-2-yl)methoxy]fluoren-9-one, and 2,7-bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one.

IT 861118-25-4P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-29-8P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one

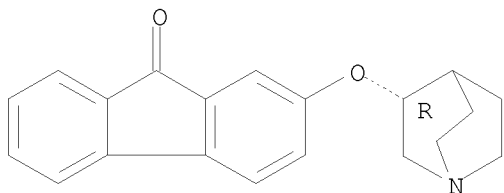
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of $\alpha 7$ nicotinic receptors and methods of use)

RN 861118-25-4 CAPLUS

CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

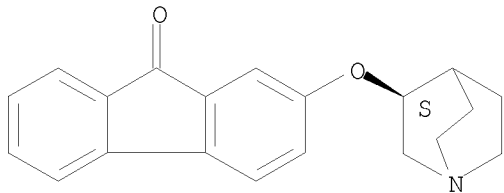
Absolute stereochemistry.



RN 861118-29-8 CAPLUS

CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



IT 861118-28-7P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one p-toluenesulfonate 861118-30-1P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one fumarate 861118-93-6P, 2-[(1-Azabicyclo[2.2.2]octan-3-yl)oxy]-9H-carbazole

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of $\alpha 7$ nicotinic receptors and methods of use)

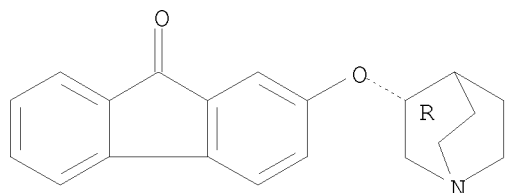
RN 861118-28-7 CAPLUS

CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-,
4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

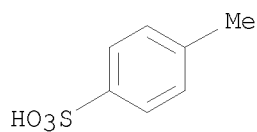
CRN 861118-25-4
CMF C20 H19 N O2

Absolute stereochemistry.



CM 2

CRN 104-15-4
CMF C7 H8 O3 S

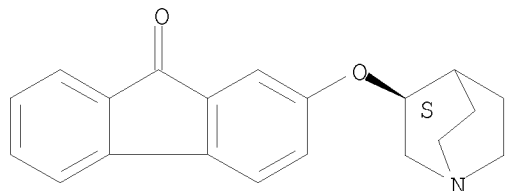


RN 861118-30-1 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 861118-29-8
CMF C20 H19 N O2

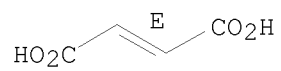
Absolute stereochemistry.



CM 2

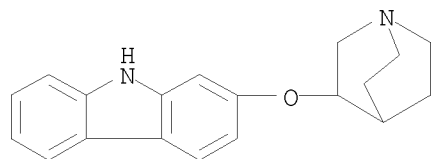
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



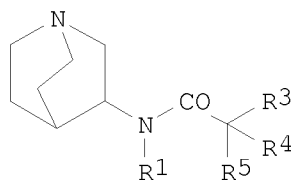
RN 861118-93-6 CAPLUS

CN 9H-Carbazole, 2-(1-azabicyclo[2.2.2]oct-3-yloxy)- (CA INDEX NAME)

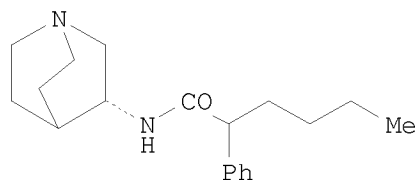


L3 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:41467 CAPLUS
 DOCUMENT NUMBER: 140:94180
 TITLE: Preparation of new quinuclidine amide derivatives for
 therapeutic uses as antagonists of M3 muscarinic
 receptors
 INVENTOR(S): Prat Quinones, Maria
 PATENT ASSIGNEE(S): Almirall Prodesfarma S.A., Spain
 SOURCE: PCT Int. Appl., 65 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|-----------------|-------------|
| WO 2004005285 | A1 | 20040115 | WO 2003-EP6708 | 20030625 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| ES 2204295 | A1 | 20040416 | ES 2002-1539 | 20020702 |
| ES 2204295 | B1 | 20050801 | | |
| CA 2492535 | A1 | 20040115 | CA 2003-2492535 | 20030625 |
| AU 2003242757 | A1 | 20040123 | AU 2003-242757 | 20030625 |
| AU 2003242757 | B2 | 20090108 | | |
| EP 1519933 | A1 | 20050406 | EP 2003-762514 | 20030625 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| BR 2003012216 | A | 20050412 | BR 2003-12216 | 20030625 |
| CN 1678610 | A | 20051005 | CN 2003-820648 | 20030625 |
| CN 100404533 | C | 20080723 | | |
| JP 2005533826 | T | 20051110 | JP 2004-518575 | 20030625 |
| NZ 537341 | A | 20060428 | NZ 2003-537341 | 20030625 |
| RU 2314306 | C2 | 20080110 | RU 2005-102585 | 20030625 |
| MX 2004012271 | A | 20050408 | MX 2004-12271 | 20041207 |
| ZA 2004010404 | A | 20050905 | ZA 2004-10404 | 20041223 |
| IN 2004DN04140 | A | 20061229 | IN 2004-DN4140 | 20041227 |
| US 20060167042 | A1 | 20060727 | US 2005-518714 | 20050801 |
| US 7488735 | B2 | 20090210 | | |
| US 20080234316 | A1 | 20080925 | US 2008-970698 | 20080108 |
| PRIORITY APPLN. INFO.: | | | ES 2002-1539 | A 20020702 |
| | | | WO 2003-EP6708 | W 20030625 |
| | | | US 2005-518714 | A3 20050801 |
| OTHER SOURCE(S): | | MARPAT 140:94180 | | |
| GI | | | | |



I



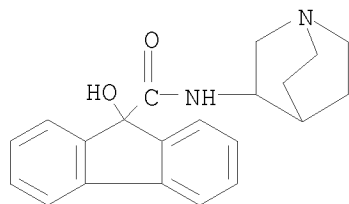
II

AB N-quinuclidinyl amides, such as I [R1 = H, alkyl; R3 = furyl, thienyl, phenyl; R4 = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylmethyl, Ph, benzyl, phenethyl, furyl, thienyl; R5 = H, OH, Me, CH2OH], were prepared for use in therapy as antagonists of M3 muscarinic receptors. These amides are claimed for use in the treatment of respiratory, urol. or gastrointestinal pathol. conditions and diseases susceptible to amelioration by antagonism of M3 muscarinic receptors. Thus, amide II was prepared in 63.1% yield via an amidation reaction of (3R)-aminoquinuclidine with 2-phenylhexanoic acid in DMF and CHCl3. The prepared N-quinuclidinyl amides were assayed for human muscarinic receptor binding activity and for effect on bronchial response to i.v. acetylcholine challenge in guinea pigs. Tablet, liquid inhalant, powder inhalant, and inhalation aerosol pharmaceutical compns. of the amides were presented.

IT 644468-37-1P
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of N-quinuclidinyl amides for use in pharmaceutical compns. as M3 muscarinic receptor antagonists)

RN 644468-37-1 CAPLUS

CN 9H-Fluorene-9-carboxamide, N-1-azabicyclo[2.2.2]oct-3-yl-9-hydroxy- (CA INDEX NAME)

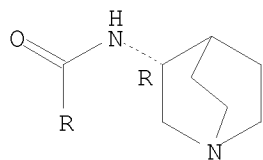
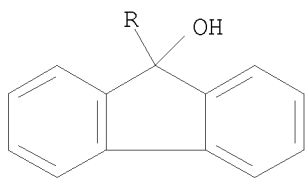


IT 644468-25-7P 644468-36-0P 644468-85-9P
 644468-95-1P 644468-99-5P 644469-01-2P
 644469-03-4P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of N-quinuclidinyl amides for use in pharmaceutical compns. as M3 muscarinic receptor antagonists)

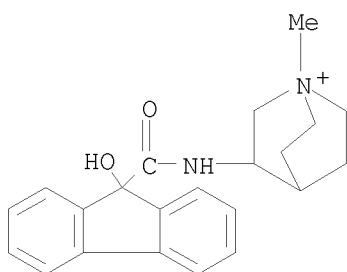
RN 644468-25-7 CAPLUS

CN 9H-Fluorene-9-carboxamide, N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-9-hydroxy- (CA INDEX NAME)

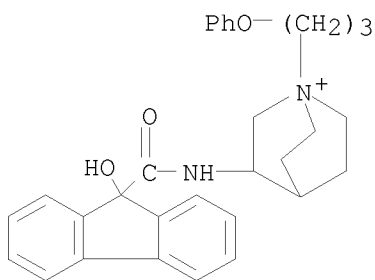
Absolute stereochemistry.



RN 644468-36-0 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-1-methyl-, bromide (1:1) (CA INDEX NAME)



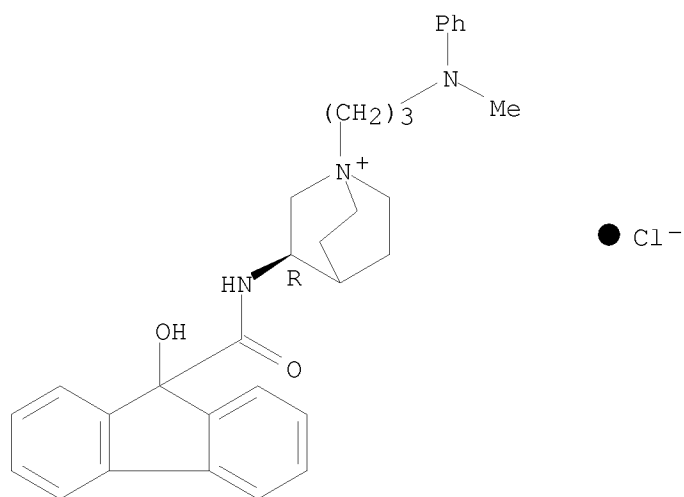
RN 644468-85-9 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-1-(3-phenoxypropyl)-, bromide (1:1) (CA INDEX NAME)



RN 644468-95-1 CAPLUS
 CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-

yl)carbonyl]amino]-1-[3-(methylphenylamino)propyl]-, chloride (1:1), (3R)-
(CA INDEX NAME)

Absolute stereochemistry.



RN 644468-99-5 CAPLUS

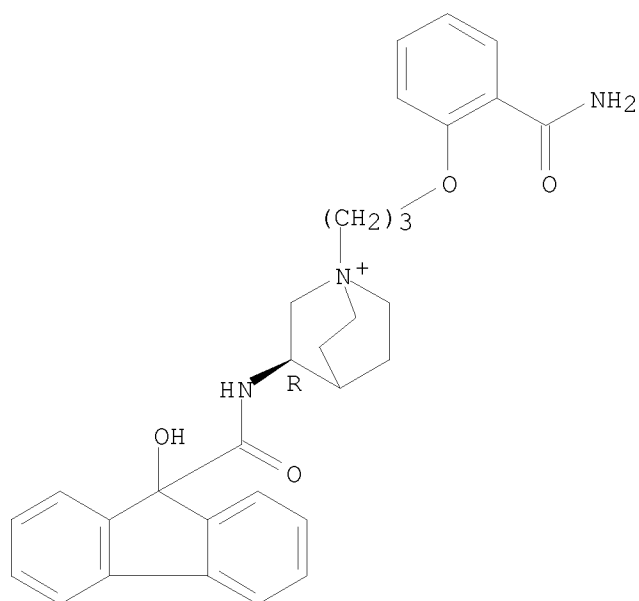
CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-[2-(aminocarbonyl)phenoxy]propyl]-3-
[[9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-, formate (1:1), (3R)- (CA
INDEX NAME)

CM 1

CRN 644468-98-4

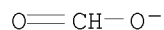
CMF C31 H34 N3 O4

Absolute stereochemistry.



CM 2

CRN 71-47-6
CMF C H O2

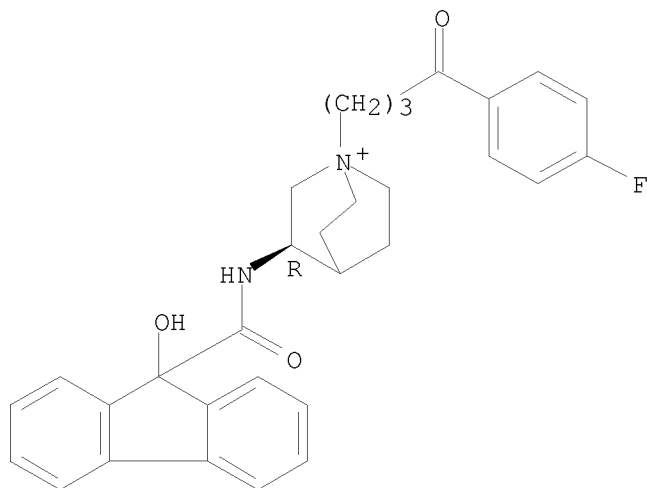


RN 644469-01-2 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 1-[4-(4-fluorophenyl)-4-oxobutyl]-3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-, formate (1:1), (3R)- (CA INDEX NAME)

CM 1

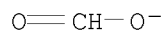
CRN 644469-00-1
CMF C31 H32 F N2 O3

Absolute stereochemistry.



CM 2

CRN 71-47-6
CMF C H O2

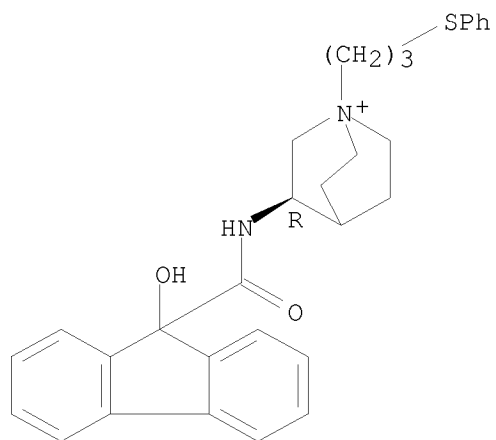


RN 644469-03-4 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]amino]-1-[3-(phenylthio)propyl]-, formate (1:1), (3R)- (CA INDEX NAME)

CM 1

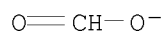
CRN 644469-02-3
CMF C30 H33 N2 O2 S

Absolute stereochemistry.



CM 2

CRN 71-47-6
CMF C H O2



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:595172 CAPLUS

DOCUMENT NUMBER: 140:156701

TITLE: Syntheses of 3-Ethylidenequinuclidine derivatives as squalene synthase inhibitors. Part 2: enzyme inhibition and effects on plasma lipid levels

AUTHOR(S): Ishihara, Tsukasa; Kakuta, Hirotoshi; Moritani, Hiroshi; Ugawa, Tohru; Sakamoto, Shuichi; Tsukamoto, Shin-ichi; Yanagisawa, Isao

CORPORATE SOURCE: Institute for Drug Discovery Research, Yamanouchi Pharmaceutical Co., Ltd., Tsukuba, Ibaraki, 305-8585, Japan

SOURCE: Bioorganic & Medicinal Chemistry (2003), 11(17), 3735-3745

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:156701

AB Squalene synthase (E.C. 2.5.1.21) is a microsomal enzyme which catalyzes the reductive dimerization of two mols. of farnesyl diphosphate to form squalene, and is involved in the first committed step in cholesterol biosynthesis. It is an attractive target for hypocholesterolemic and hypotriglyceridemic strategies. We synthesized a series of 3-ethylidenequinuclidine derivs., and evaluated their ability to inhibit squalene synthase in vitro and to lower non-HDL cholesterol levels in hamsters. 3-Ethylidenequinuclidine derivs. incorporating an unsubstituted 9H-carbazole moiety reduced plasma non-HDL cholesterol levels and did not affect plasma transaminase levels, indicating a lack of hepatotoxicity. Among the novel compds., (Z)-2-[2-(quinuclidin-3-ylidene)ethoxy]-9H-carbazole hydrochloride (8) (YM-53579) and (E)-2-[2-fluoro-2-(quinuclidin-3-ylidene)ethoxy]-9H-carbazole hydrochloride (28) (YM-53601) were potent inhibitors of squalene synthase derived from human hepatoma cells, with IC50 values of 160 and 79 nM, resp. They also reduced plasma non-HDL cholesterol levels in hamsters by approx. 50 and 70%, resp., at an oral dose of 50 mg/kg/day for 5 days.

IT 182959-33-7P, (E)-2-[2-Fluoro-2-(quinuclidin-3-ylidene)ethoxy]-9H-carbazole hydrochloride 182959-40-6P 182959-44-0P 182959-54-2P 182959-60-0P 182959-67-7P 182959-79-1P 182959-85-9P 182959-90-6P 654084-18-1P 654084-19-2P

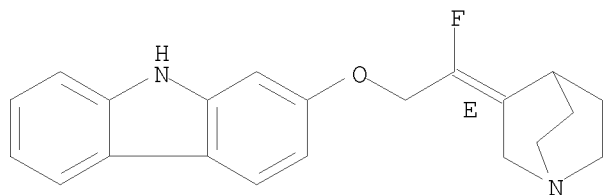
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and structure-activity relationship of 3-ethylidenequinuclidine derivs. as squalene synthase inhibitors and their effects on plasma lipid levels)

RN 182959-33-7 CAPLUS

CN 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

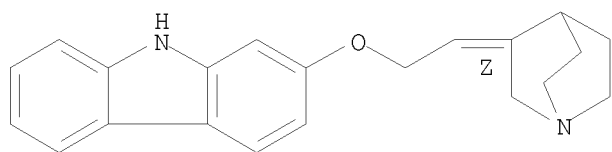
Double bond geometry as shown.



● HCl

RN 182959-40-6 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-,
 monohydrochloride (9CI) (CA INDEX NAME)

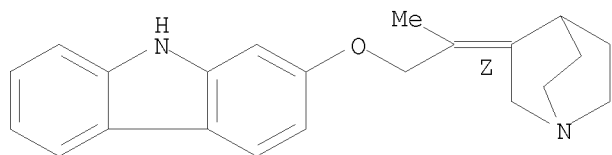
Double bond geometry as shown.



● HCl

RN 182959-44-0 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)propoxy]-,
 monohydrochloride (9CI) (CA INDEX NAME)

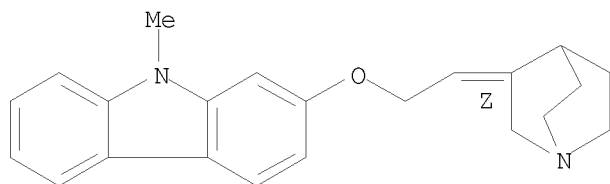
Double bond geometry as shown.



● HCl

RN 182959-54-2 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-methyl-
 , monohydrochloride (9CI) (CA INDEX NAME)

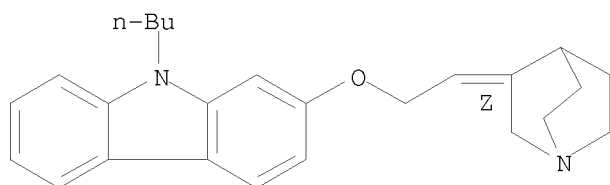
Double bond geometry as shown.



● HCl

RN 182959-60-0 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-butyl-, monohydrochloride (9CI) (CA INDEX NAME)

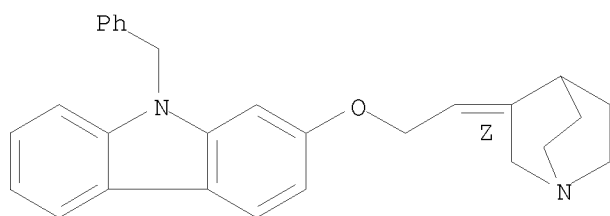
Double bond geometry as shown.



● HCl

RN 182959-67-7 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-(phenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

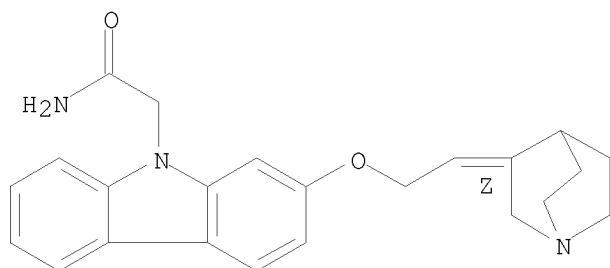
Double bond geometry as shown.



● HCl

RN 182959-79-1 CAPLUS
 CN 9H-Carbazole-9-acetamide, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.

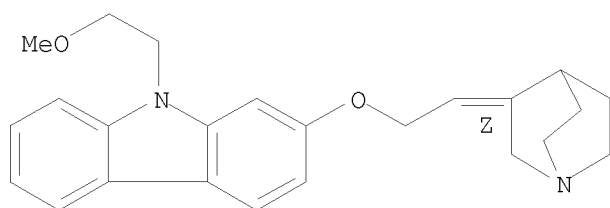


● HCl

RN 182959-85-9 CAPLUS

CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-(2-methoxyethyl)- (CA INDEX NAME)

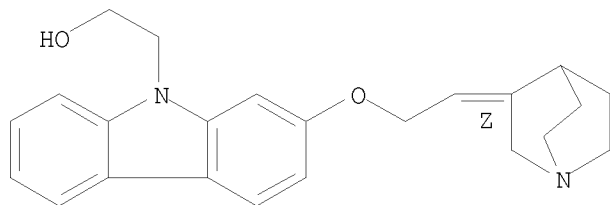
Double bond geometry as shown.



RN 182959-90-6 CAPLUS

CN 9H-Carbazole-9-ethanol, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]- (CA INDEX NAME)

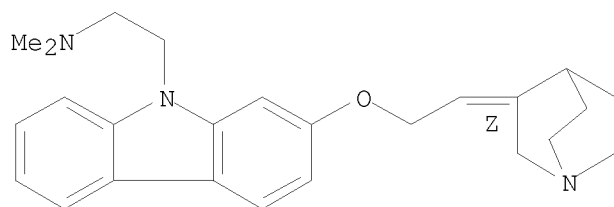
Double bond geometry as shown.



RN 654084-18-1 CAPLUS

CN 9H-Carbazole-9-ethanamine, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-N,N-dimethyl-, hydrochloride (1:1) (CA INDEX NAME)

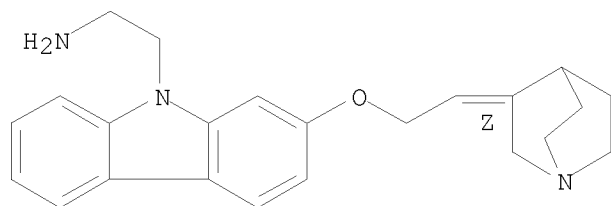
Double bond geometry as shown.



● HCl

RN 654084-19-2 CAPLUS
 CN 9H-Carbazole-9-ethanamine, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

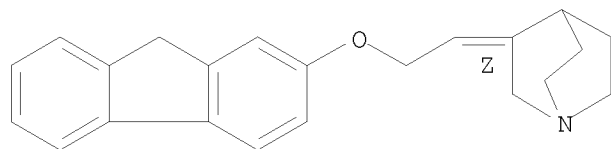
Double bond geometry as shown.



● HCl

IT 654083-83-7
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (preparation and structure-activity relationship of 3-ethylidenequinuclidine derivs. as squalene synthase inhibitors and their effects on plasma lipid levels)
 RN 654083-83-7 CAPLUS
 CN 1-Azabicyclo[2.2.2]octane, 3-[2-(9H-fluoren-2-yloxy)ethylidene]-, (3Z)- (CA INDEX NAME)

Double bond geometry as shown.

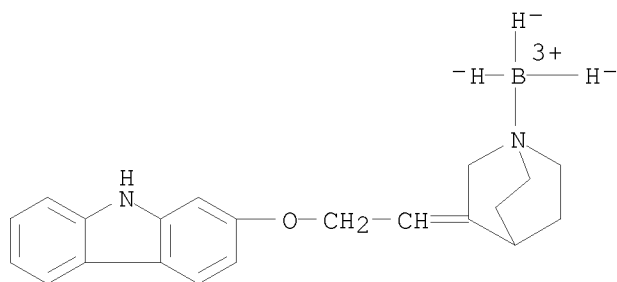


IT 182961-46-2P 182961-49-5P 182961-50-8P
 182961-51-9P 182961-52-0P 654083-99-5P
 654084-01-2P 654084-03-4P 654084-07-8P
 654084-09-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and structure-activity relationship of 3-ethylidenequinuclidine derivs. as squalene synthase inhibitors and their effects on plasma

lipid levels)

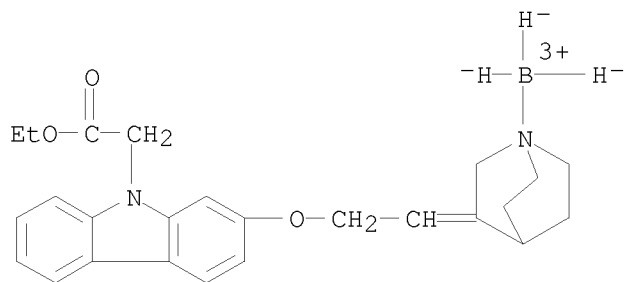
RN 182961-46-2 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



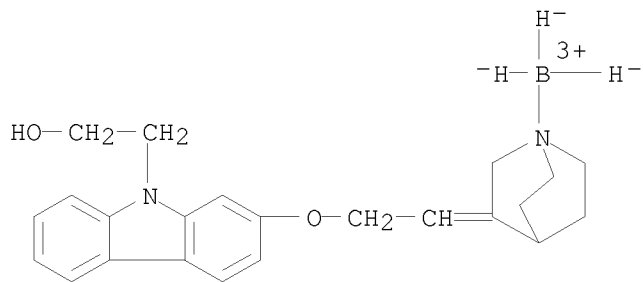
RN 182961-49-5 CAPLUS

CN Boron, [ethyl 2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-9-acetate-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



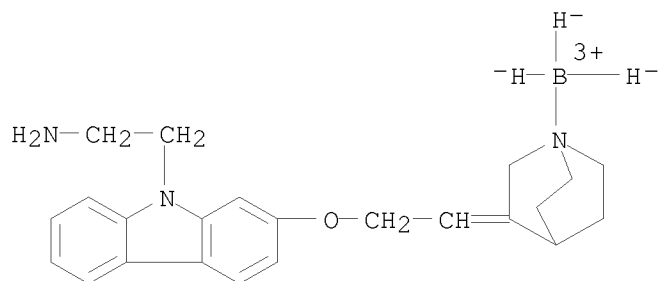
RN 182961-50-8 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-9-ethanol-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



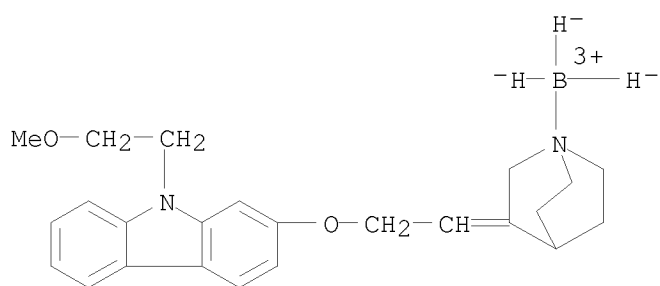
RN 182961-51-9 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-9-ethanamine-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



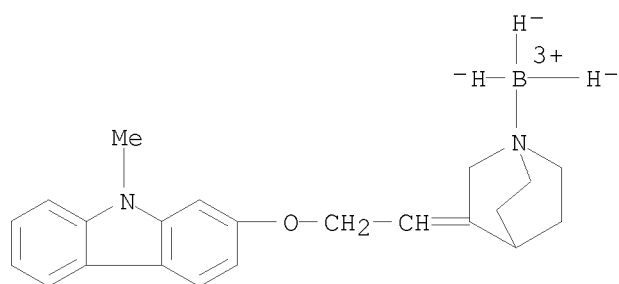
RN 182961-52-0 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-(2-methoxyethyl)-9H-carbazole-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



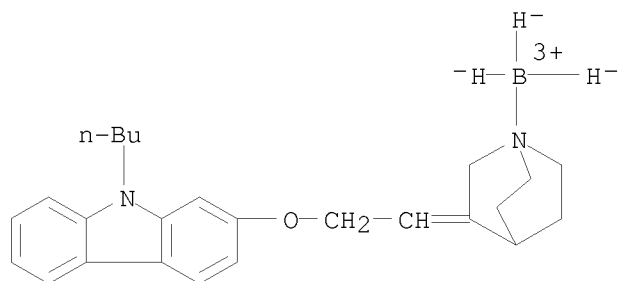
RN 654083-99-5 CAPLUS

CN Boron, [2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene-κN)ethoxy]-9-methyl-9H-carbazole]trihydro-, (T-4)- (9CI) (CA INDEX NAME)



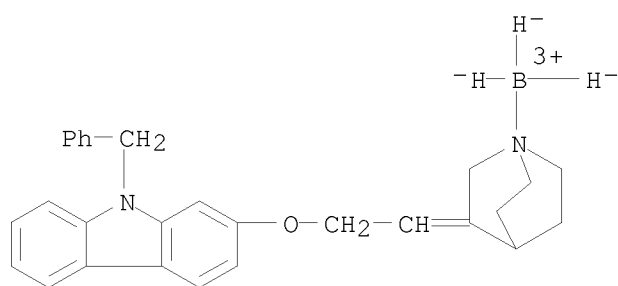
RN 654084-01-2 CAPLUS

CN Boron, [2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene-κN)ethoxy]-9-butyl-9H-carbazole]trihydro-, (T-4)- (9CI) (CA INDEX NAME)



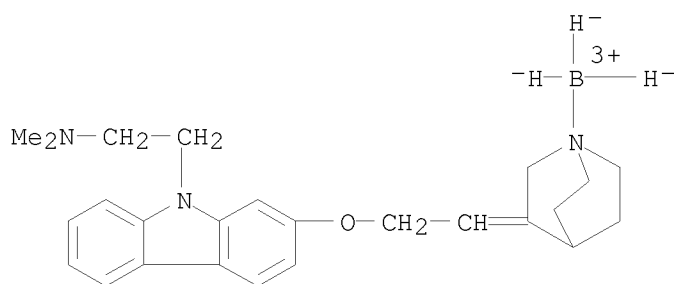
RN 654084-03-4 CAPLUS

CN Boron, [2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene-κN)ethoxy]-9-(phenylmethyl)-9H-carbazole]trihydro-, (T-4)- (9CI) (CA INDEX NAME)



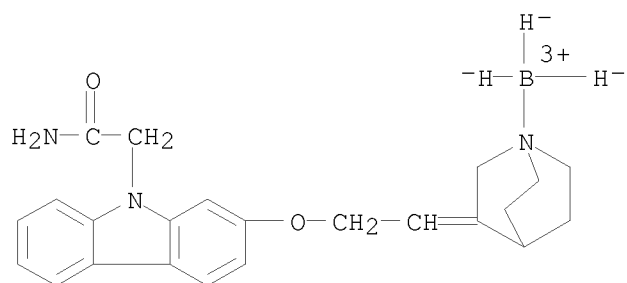
RN 654084-07-8 CAPLUS

CN Boron, [2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene-κN)ethoxy]-N,N-dimethyl-9H-carbazole-9-ethanamine]trihydro-, (T-4)- (9CI) (CA INDEX NAME)



RN 654084-09-0 CAPLUS

CN Boron, [2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene-κN)ethoxy]-9H-carbazole-9-acetamide]trihydro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

30

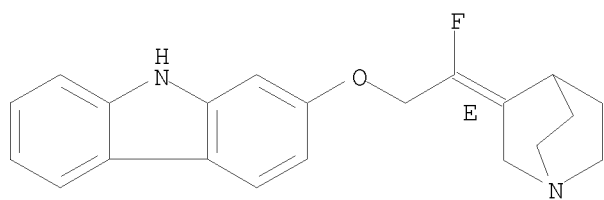
THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:570838 CAPLUS
DOCUMENT NUMBER: 139:128032
TITLE: Combined use of a GLP-1 compound and another drug for
treating dyslipidemia
INVENTOR(S): Knudsen, Lotte Bjerre; Selmer, Johan
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-------------|
| WO 2003059378 | A2 | 20030724 | WO 2002-DK887 | 20021220 |
| WO 2003059378 | A3 | 20031127 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| AU 2002351752 | A1 | 20030730 | AU 2002-351752 | 20021220 |
| EP 1461069 | A2 | 20040929 | EP 2002-787466 | 20021220 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | |
| JP 2005518408 | T | 20050623 | JP 2003-559539 | 20021220 |
| US 20030143183 | A1 | 20030731 | US 2002-328284 | 20021223 |
| US 6939853 | B2 | 20050906 | | |
| US 20050256053 | A1 | 20051117 | US 2005-185209 | 20050720 |
| US 20070207964 | A1 | 20070906 | US 2007-799798 | 20070503 |
| PRIORITY APPLN. INFO.: | | | DK 2001-1970 | A 20011229 |
| | | | DK 2002-759 | A 20020517 |
| | | | US 2002-350088P | P 20020117 |
| | | | WO 2002-DK887 | W 20021220 |
| | | | US 2002-328284 | A1 20021223 |
| | | | US 2005-185209 | A1 20050720 |
| AB | Methods and uses for treatment of dyslipidemia comprising administration of a GLP-1 compound and another antidyslipidemic drug. | | | |
| IT | 182959-33-7, YM 53601 | | | |
| | RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) | | | |
| | (combined use of GLP-1 compound and another drug for treating dyslipidemia) | | | |
| RN | 182959-33-7 CAPLUS | | | |
| CN | 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME) | | | |

Double bond geometry as shown.



● HCl

REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:465214 CAPLUS

DOCUMENT NUMBER: 139:159752

TITLE: YM-53601, a novel squalene synthase inhibitor, suppresses lipogenic biosynthesis and lipid secretion in rodents

AUTHOR(S): Ugawa, Tohru; Kakuta, Hirotoshi; Moritani, Hiroshi; Inagaki, Osamu; Shikama, Hisataka

CORPORATE SOURCE: Cardiovascular Diseases Research, Institute for Drug Discovery Research, Yamanouchi Pharmaceutical Co. Ltd, Ibaraki, 305-8585, Japan

SOURCE: British Journal of Pharmacology (2003), 139(1), 140-146

CODEN: BJPCBM; ISSN: 0007-1188

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To better understand how it decreases plasma cholesterol and triglyceride levels, we evaluated the effect of (E)-2-[2-fluoro-2-(quinuclidin-3-ylidene)ethoxy]-9H-carbazole monohydrochloride (YM-53601) on lipogenic biosynthesis in the liver and lipid secretion from the liver in rats and hamsters. Single administration of YM-53601 in cholestyramine-treated rats inhibited triglyceride and free fatty acid (FFA) biosynthesis at a similar dose range to that at which it inhibited cholesterol biosynthesis. YM-53601 inhibited both triglyceride and FFA biosynthesis in hamsters treated with cholestyramine. YM-53601 by single oral administration decreased the enhanced plasma triglyceride levels in hamsters induced by an injection of protamine sulfate, which inhibits lipoprotein lipase (LPL) and consequently increases plasma very low-d. lipoprotein (VLDL) triglyceride levels. YM-53601 also decreased the enhanced plasma triglyceride and cholesterol levels in hamsters treated with Triton WR1339, which also inhibits the degradation of VLDL. Plasma cholesterol was significantly decreased as soon as 1 h after single administration of YM-53601 in hamsters fed a normal diet. This is the first report that a squalene synthase inhibitor suppresses lipogenic biosynthesis in the liver and cholesterol and triglyceride secretion from the liver in vivo. We therefore suggest that the mechanism by which YM-53601 decreases plasma triglyceride might include these effects. The finding that YM-53601 rapidly decreased plasma cholesterol suggests that this compound may be effective in decreasing plasma cholesterol levels early in the course of treatment of hypercholesterolemia in humans.

IT 182959-33-7, YM 53601

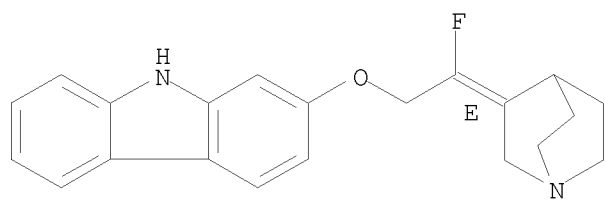
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); BIOL (Biological study)

(YM-53601, a novel squalene synthase inhibitor, suppresses lipogenic biosynthesis and lipid secretion in rodents)

RN 182959-33-7 CAPLUS

CN 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

Double bond geometry as shown.



● HCl

REFERENCE COUNT:

28

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:345229 CAPLUS

DOCUMENT NUMBER: 139:223702

TITLE: Syntheses and biological evaluation of novel
quinuclidine derivatives as squalene synthase
inhibitors

AUTHOR(S): Ishihara, Tsukasa; Kakuta, Hirotoshi; Moritani,
Hiroshi; Ugawa, Tohru; Sakamoto, Shuichi; Tsukamoto,
Shin-Ichi; Yanagisawa, Isao

CORPORATE SOURCE: Institute for Drug Discovery Research, Yamanouchi
Pharmaceutical Co., Ltd., Tsukuba, Ibaraki, 305-8585,
Japan

SOURCE: Bioorganic & Medicinal Chemistry (2003), 11(11),
2403-2414

CODEN: BMECEP; ISSN: 0968-0896

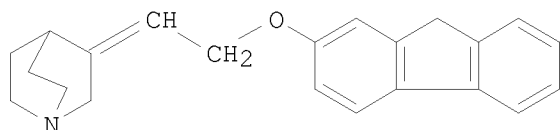
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:223702

GI



I

AB Squalene synthase (E.C. 2.5.1.21) catalyzes the reductive dimerization of two mols. of farnesyl diphosphate to form squalene and is involved in the first committed step in cholesterol biosynthesis. Inhibition of this enzyme is therefore an attractive target for hypocholesterolemic strategies. A series of quinuclidine derivs. incorporating a tricyclic system was synthesized and evaluated for their ability to inhibit squalene synthase in vitro. A 9H-fluorene moiety was found to be optimal as the tricyclic system for potent inhibitory activity. Improved activity can be achieved with a conformationally constrained three-atom linkage connecting the tricyclic system with the quinuclidine nucleus. Among these compds., (Z)-3-[2-(9H-fluoren-2-yloxy)ethylidene]-quinuclidine hydrochloride I was found to be a potent inhibitor of squalene synthase derived from hamster liver and human hepatoma cells with IC₅₀ values of 76 and 48 nM, resp. Oral dosing of compound I demonstrated effective reduction of plasma non-HDL cholesterol levels in hamsters.

IT 180154-63-6P 180154-64-7P 180154-66-9P

180154-69-2P 591733-15-2P 591733-16-3P

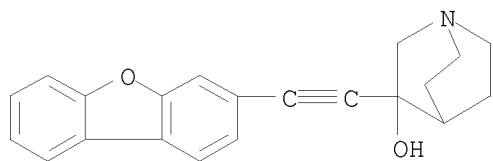
591733-17-4P 591733-18-5P 591733-19-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(syntheses and biol. evaluation quinuclidines as squalene synthase
inhibitors)

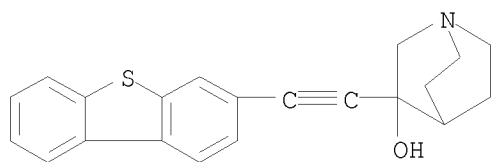
RN 180154-63-6 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(3-dibenzofuranyl)ethynyl]- (CA INDEX
NAME)



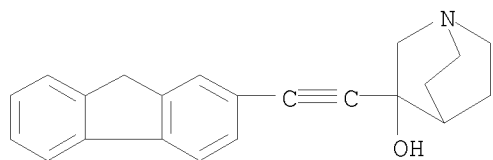
RN 180154-64-7 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(3-dibenzothiophenyl)ethynyl]- (CA INDEX NAME)



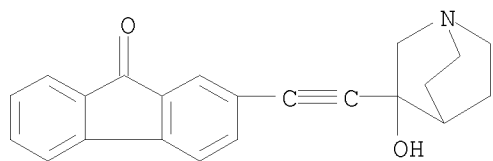
RN 180154-66-9 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(9H-fluoren-2-yl)ethynyl]- (CA INDEX NAME)



RN 180154-69-2 CAPLUS

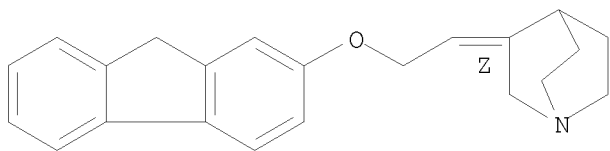
CN 9H-Fluoren-9-one, 2-[2-(3-hydroxy-1-azabicyclo[2.2.2]oct-3-yl)ethynyl]- (CA INDEX NAME)



RN 591733-15-2 CAPLUS

CN 1-Azabicyclo[2.2.2]octane, 3-[2-(9H-fluoren-2-yloxy)ethylidene]-, hydrochloride (1:1), (3Z)- (CA INDEX NAME)

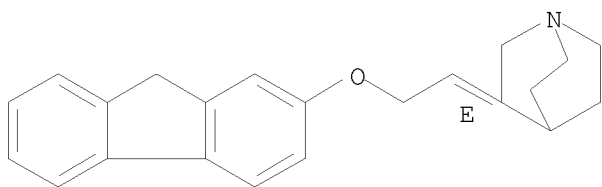
Double bond geometry as shown.



● HCl

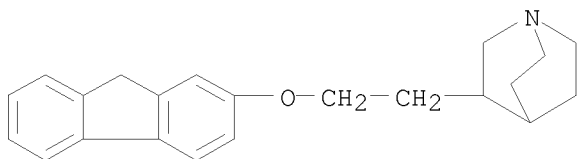
RN 591733-16-3 CAPLUS
 CN 1-Azabicyclo[2.2.2]octane, 3-[2-(9H-fluoren-2-yloxy)ethylidene]-,
 hydrochloride (1:1), (3E)- (CA INDEX NAME)

Double bond geometry as shown.



● HCl

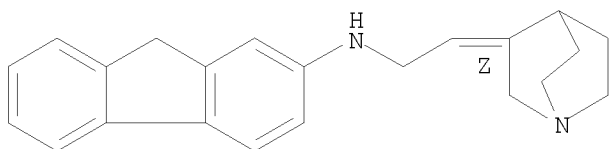
RN 591733-17-4 CAPLUS
 CN 1-Azabicyclo[2.2.2]octane, 3-[2-(9H-fluoren-2-yloxy)ethyl]-, hydrochloride
 (1:1) (CA INDEX NAME)



● HCl

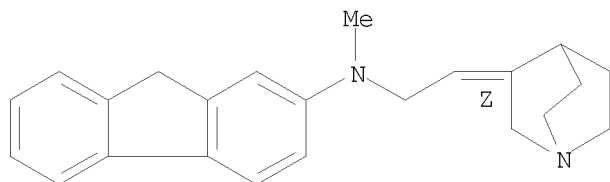
RN 591733-18-5 CAPLUS
 CN 9H-Fluoren-2-amine, N-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethyl]-
 (CA INDEX NAME)

Double bond geometry as shown.

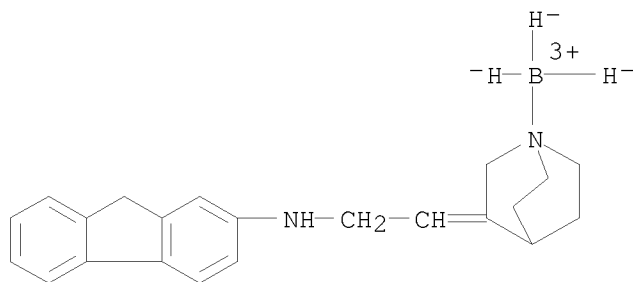


RN 591733-19-6 CAPLUS
 CN 9H-Fluoren-2-amine, N-[2-(2Z)-1-azabicyclo[2.2.2]oct-3-ylideneethyl]-N-methyl- (CA INDEX NAME)

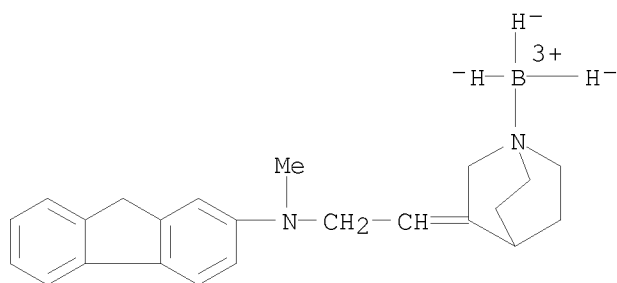
Double bond geometry as shown.



IT 592532-82-6P 592532-83-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (syntheses and biol. evaluation quinuclidines as squalene synthase inhibitors)
 RN 592532-82-6 CAPLUS
 CN Boron, [N-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene-κN)ethyl]-9H-fluoren-2-amine]trihydro-, (T-4)- (9CI) (CA INDEX NAME)



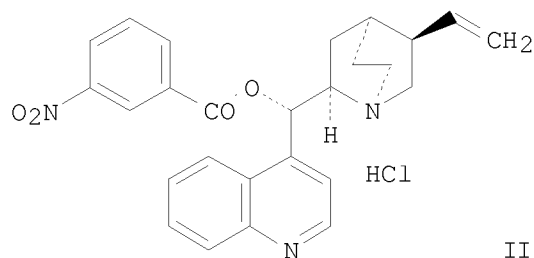
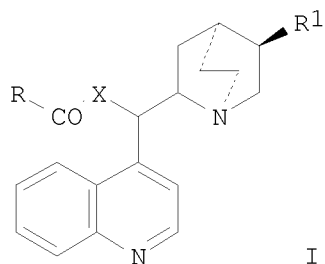
RN 592532-83-7 CAPLUS
 CN Boron, [N-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene-κN)ethyl]-N-methyl-9H-fluoren-2-amine]trihydro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2003:173580 CAPLUS
 DOCUMENT NUMBER: 138:221735
 TITLE: Preparation of bicyclic cinchonan derivatives for pharmaceutical use as inhibitors of chemokine binding to hUS28
 INVENTOR(S): McMaster, Brian E.; Schall, Thomas J.; Penfold, Mark; Wright, J. J.; Dairaghi, Daniel J.
 PATENT ASSIGNEE(S): Chemocentryx, Inc., USA
 SOURCE: PCT Int. Appl., 38 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------|-----------------|------------|
| WO 2003018549 | A2 | 20030306 | WO 2002-US28007 | 20020829 |
| WO 2003018549 | A3 | 20030821 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2002323570 | A1 | 20030310 | AU 2002-323570 | 20020829 |
| US 20030114423 | A1 | 20030619 | US 2002-233336 | 20020829 |
| US 6821998 | B2 | 20041123 | | |
| US 20030149055 | A1 | 20030807 | US 2002-233326 | 20020829 |
| US 7101894 | B2 | 20060905 | | |
| EP 1429771 | A2 | 20040623 | EP 2002-757560 | 20020829 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| PRIORITY APPLN. INFO.: | | | US 2001-316386P | P 20010830 |
| | | | WO 2002-US28007 | W 20020829 |
| OTHER SOURCE(S): | | MARPAT 138:221735 | | |
| GI | | | | |



AB Bicyclic cinchonane derivs., such as I [R = aryl, arylalkyl, heteroarylalkyl, amino, etc.; R1 = CH:CH2, CH2Me; X = O, NH], were prepd for therapeutic use as antiviral agents for treating cytomegalovirus (CMV) infection or CMV related diseases. Thus, acylated cinchonine hydrochloride salt II was prepared in 89% yield by refluxing cinchonine with 3-nitrobenzoyl chloride in toluene for 24 h. The prepared bicyclics

underwent radioligand binding assays using Rhesus dermal fibroblasts infected with CMV and in hUS28 transfected murine cells.

IT 500553-53-7P 500553-54-8P 500553-64-0P

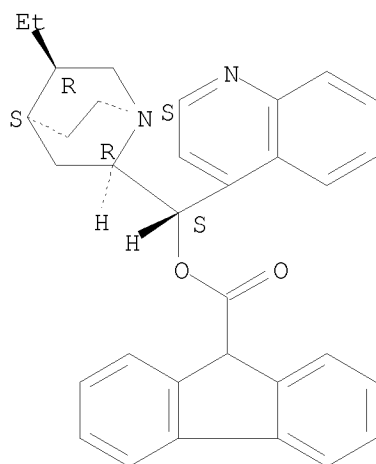
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of bicyclic cinchonan derivs. for pharmaceutical use as inhibitors of chemokine binding to hUS28 for treatment of cytomegalovirus infection and related diseases)

RN 500553-53-7 CAPLUS

CN Cinchonan-9-ol, 10,11-dihydro-, 9H-fluorene-9-carboxylate (ester), (9S)-(9CI) (CA INDEX NAME)

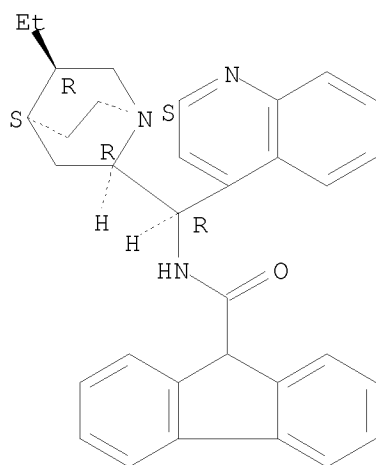
Absolute stereochemistry.



RN 500553-54-8 CAPLUS

CN 9H-Fluorene-9-carboxamide, N-[(9R)-10,11-dihydrocinchonan-9-yl]- (9CI) (CA INDEX NAME)

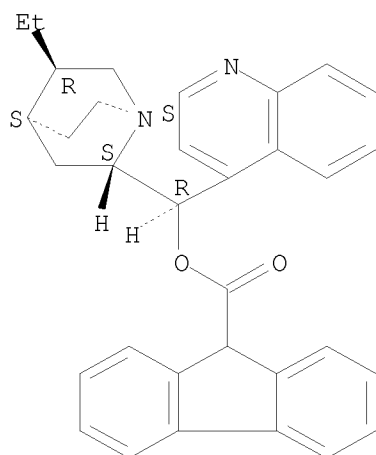
Absolute stereochemistry.



RN 500553-64-0 CAPLUS

CN Cinchonan-9-ol, 10,11-dihydro-, 9H-fluorene-9-carboxylate (ester), (8 α , 9R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:813663 CAPLUS

DOCUMENT NUMBER: 138:314281

TITLE: Effect of YM-53601, a novel squalene synthase inhibitor, on the clearance rate of plasma LDL and VLDL in hamsters

AUTHOR(S): Ugawa, Tohru; Kakuta, Hirotoshi; Moritani, Hiroshi; Inagaki, Osamu

CORPORATE SOURCE: Cardiovascular Diseases Research, Institute for Drug Discovery Research, Yamanouchi Pharmaceutical Co. Ltd., Tsukuba, 305-8585, Japan

SOURCE: British Journal of Pharmacology (2002), 137(4), 561-567

CODEN: BJPCBM; ISSN: 0007-1188

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 1 To better understand how it decreases plasma cholesterol and triglyceride, the authors evaluated the effect of YM-53601 (E-2-[2-fluoro-2-(quinuclidin-3-ylidene) ethoxy]-9H-carbazole monohydrochloride) on the clearance rate of low d. lipoprotein (LDL) and very low d. lipoprotein (VLDL) in hamsters. 2 Treatment with YM-53601 at 50 mg kg⁻¹ for 5 days in hamsters fed a normal diet enhanced the disappearance of 1,1'-Diocetyl-3,3,3',3'-tetramethylindocarbocyanine perchlorate (DiI)-VLDL and DiI-LDL. This effect on DiI-LDL was lost in the early phase after DiI-methyl(met)-LDL, chemical modified to block LDL receptor binding, was injected in hamsters, but was retained in the late phase. Pre-treatment with protamine sulfate, which inhibits the activity of LPL, also failed to enhance DiI-VLDL clearance rate by YM-53601. 3 Even on single oral administration at 30 mg kg⁻¹, YM-53601 enhanced the disappearance of the high concentration of plasma triglyceride after injection

of intrafat, an emulsion of fat. Plasma triglyceride was significantly decreased as soon as 1 h after single administration of YM-53601 in hamsters fed a normal diet. 4 These results indicate that the decrease in plasma total cholesterol and triglyceride after the treatment with YM-53601 is due to its enhancement of the clearance rate of LDL and VLDL, resp. Moreover, YM-53601 may be effective in decreasing plasma triglyceride levels early in the course of treatment of hypertriglyceridemia in humans.

IT 182959-33-7, YM 53601

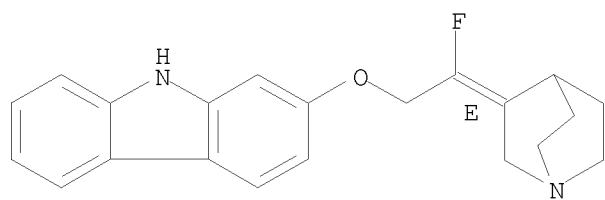
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effect of YM-53601 on the clearance rate of plasma LDL and VLDL in hamsters)

RN 182959-33-7 CAPLUS

CN 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

Double bond geometry as shown.



● HCl

REFERENCE COUNT:

24

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:290519 CAPLUS

DOCUMENT NUMBER: 137:195358

TITLE: Experimental model of escape phenomenon in hamsters and the effectiveness of YM-53601 in the model

AUTHOR(S): Ugawa, Tohru; Kakuta, Hirotooshi; Moritani, Hiroshi; Shikama, Hisataka

CORPORATE SOURCE: Cardiovascular Diseases Research, Institute for Drug Discovery Research, Yamanouchi Pharmaceutical Co. Ltd., Tsukuba, 305-8585, Japan

SOURCE: British Journal of Pharmacology (2002), 135(6), 1572-1578

CODEN: BJPCBM; ISSN: 0007-1188

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The aim of this study was to establish an exptl. model of the escape phenomenon, in which plasma cholesterol, initially reduced by a 3-hydroxy-3-methylglutaryl CoA (HMG-CoA) reductase inhibitor such as pravastatin, increases again on long-term administration. The authors also evaluated the efficacy of YM-53601 ((E)-2-[2-fluoro-2-(quinuclidin-3-ylidene) ethoxy]-9H-carbazole monohydrochloride), a squalene synthase inhibitor, in this model. Pravastatin inhibited cholesterol biosynthesis in hamster primary hepatocytes (IC₅₀, 14 nM). After pre-treatment with pravastatin, in contrast, almost no effect on cholesterol biosynthesis was seen. In hamsters fed a high fat diet, 3 mg kg⁻¹ pravastatin for 9 days decreased plasma non-HDL cholesterol (total cholesterol - high d. lipoprotein cholesterol) (P < 0.01), but this effect was lost between 17 and 27 days of treatment, accompanied by an increase in HMG-CoA reductase activity. No such increase in plasma non-HDL cholesterol was seen with YM-53601 at 30 mg kg⁻¹ after 9 (P < 0.001), 17 (P < 0.01) or 27 (P < 0.001) days of treatment. Replacement of pravastatin with YM-53601 caused a decrease in plasma non-HDL cholesterol by 53% (P < 0.001) and in HMG-CoA reductase activity. This animal model thus satisfactorily replicates the escape phenomenon observed in humans and may therefore be useful in evaluation of lipid-lowering agents, specifically comparison of HMG-CoA reductase inhibitors. Further, YM-53601 may be useful in the treatment of hypercholesterolemia without induction of the escape phenomenon.

IT 182959-33-7, YM 53601

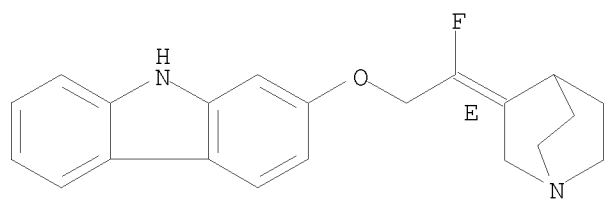
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(YM 53601; exptl. model of escape phenomenon in hamsters and effectiveness of YM-53601 in model compared with HMG-CoA reductase inhibitor)

RN 182959-33-7 CAPLUS

CN 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

Double bond geometry as shown.



● HCl

REFERENCE COUNT:

21

THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:72578 CAPLUS

DOCUMENT NUMBER: 136:270374

TITLE: Synthesis and Photochemistry of Tertiary Amine Photobase Generators

AUTHOR(S): Jensen, Kathryn H.; Hanson, James E.

CORPORATE SOURCE: Department of Chemistry, Seton Hall University, South Orange, NJ, 07079, USA

SOURCE: Chemistry of Materials (2002), 14(2), 918-923

CODEN: CMATEX; ISSN: 0897-4756

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

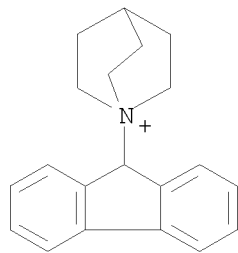
AB A family of tertiary amine photobase generators have been prepared and studied. The compds. investigated were quaternary ammonium salts of benzhydrylamine (aminodiphenylmethane) and 9-aminofluorene. The compds. were prepared by the following methods: methylation of the benzhydryl or fluorenylamines, reaction of a tertiary amine with 9-bromofluorene, and reaction of a primary or secondary amine with 9-bromofluorene followed by exhaustive methylation. Alkylation was limited to methylation in the benzhydryl system, as larger alkyl groups would not react. This appears to be a result of steric hindrance. The fluorenyl system allowed for a wider variation in the synthesis of tertiary amine photobase generators. Examination of the solution photochem. by NMR spectroscopy supported a heterolytic mechanism for photodecompn.

IT 405113-63-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis and photochem. of tertiary amine photobase generators)

RN 405113-63-5 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-(9H-fluoren-9-yl)-, bromide (1:1) (CA INDEX NAME)



● Br⁻

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

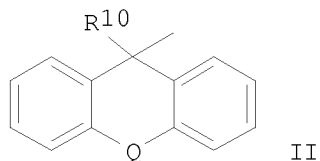
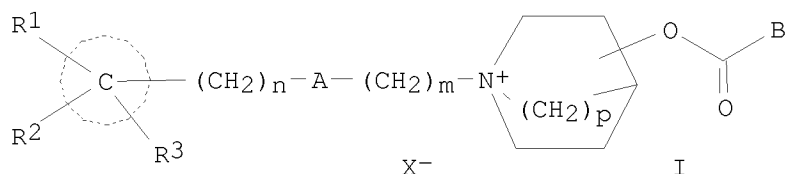
L3 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:50645 CAPLUS
DOCUMENT NUMBER: 134:116110
TITLE: Synthesis of novel quinuclidine derivatives for the
manufacture of medicament for use as antimuscarinic
agents
INVENTOR(S): Fernandez Forner, Dolores; Prat Quinones, Maria; Buil
Albero, Maria Antonia
PATENT ASSIGNEE(S): Almirall Prodesfarma S.A., Spain
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|----------|
| WO 2001004118 | A2 | 20010118 | WO 2000-EP6469 | 20000707 |
| WO 2001004118 | A3 | 20010719 | | |
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| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| ES 2165768 | A1 | 20020316 | ES 1999-1580 | 19990714 |
| ES 2165768 | B1 | 20030401 | | |
| CA 2381165 | A1 | 20010118 | CA 2000-2381165 | 20000707 |
| BR 2000012434 | A | 20020402 | BR 2000-12434 | 20000707 |
| EP 1200431 | A2 | 20020502 | EP 2000-951361 | 20000707 |
| EP 1200431 | B1 | 20030326 | | |
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| TR 200200768 | T2 | 20020722 | TR 2002-768 | 20000707 |
| CN 1373760 | A | 20021009 | CN 2000-812754 | 20000707 |
| CN 1272334 | C | 20060830 | | |
| HU 2002002100 | A2 | 20021028 | HU 2002-2100 | 20000707 |
| HU 2002002100 | A3 | 20030929 | | |
| JP 2003504368 | T | 20030204 | JP 2001-509727 | 20000707 |
| JP 4030040 | B2 | 20080109 | | |
| AT 235492 | T | 20030415 | AT 2000-951361 | 20000707 |
| EE 200200017 | A | 20030415 | EE 2002-17 | 20000707 |
| EE 4915 | B1 | 20071015 | | |
| ES 2193098 | T3 | 20031101 | ES 2000-951361 | 20000707 |
| AU 779881 | B2 | 20050217 | AU 2000-64330 | 20000707 |
| RU 2264401 | C2 | 20051120 | RU 2002-103605 | 20000707 |
| IL 147533 | A | 20060221 | IL 2000-147533 | 20000707 |
| CN 1824664 | A | 20060830 | CN 2006-10006892 | 20000707 |
| CN 100451018 | C | 20090114 | | |
| RU 2306312 | C2 | 20070920 | RU 2005-121162 | 20000707 |
| TW 284644 | B | 20070801 | TW 2000-89113865 | 20000712 |
| EG 24066 | A | 20080508 | EG 2000-907 | 20000712 |
| ZA 2002000232 | A | 20030410 | ZA 2002-232 | 20020110 |
| IN 2002DN00049 | A | 20070302 | IN 2002-DN49 | 20020111 |
| KR 773844 | B1 | 20071106 | KR 2002-700479 | 20020112 |
| BG 106301 | A | 20020830 | BG 2002-106301 | 20020114 |
| BG 65565 | B1 | 20081230 | | |
| US 20030055080 | A1 | 20030320 | US 2002-47464 | 20020114 |

| | | | | |
|------------------------|----|----------|-----------------|-------------|
| US 6750226 | B2 | 20040615 | | |
| MX 2002000467 | A | 20030425 | MX 2002-467 | 20020114 |
| HK 1042487 | A1 | 20030718 | HK 2002-103992 | 20020529 |
| US 20040132768 | A1 | 20040708 | US 2003-740264 | 20031217 |
| US 7109210 | B2 | 20060919 | | |
| US 20050209272 | A1 | 20050922 | US 2005-116777 | 20050428 |
| US 7078412 | B2 | 20060718 | | |
| AU 2005202144 | A1 | 20050609 | AU 2005-202144 | 20050518 |
| AU 2005202144 | B2 | 20070614 | | |
| JP 2005350476 | A | 20051222 | JP 2005-203365 | 20050712 |
| US 20060106056 | A1 | 20060518 | US 2006-325059 | 20060103 |
| US 7196098 | B2 | 20070327 | | |
| US 20060106055 | A1 | 20060518 | US 2006-324919 | 20060104 |
| US 7214687 | B2 | 20070508 | | |
| US 20070099953 | A1 | 20070503 | US 2006-636181 | 20061208 |
| US 7358260 | B2 | 20080415 | | |
| KR 2007007396 | A | 20070115 | KR 2006-727733 | 20061228 |
| KR 854321 | B1 | 20080826 | | |
| KR 2007009744 | A | 20070118 | KR 2006-727730 | 20061228 |
| KR 854315 | B1 | 20080826 | | |
| IN 2007DN10124 | A | 20080208 | IN 2007-DN10124 | 20071227 |
| IN 2007DN10123 | A | 20080404 | IN 2007-DN10123 | 20071227 |
| US 20080221155 | A1 | 20080911 | US 2008-74929 | 20080307 |
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| | | | AU 2000-64330 | A3 20000707 |
| | | | CN 2000-812754 | A3 20000707 |
| | | | JP 2001-509727 | A3 20000707 |
| | | | RU 2002-103605 | A3 20000707 |
| | | | WO 2000-EP6469 | W 20000707 |
| | | | IN 2002-DN49 | A3 20020111 |
| | | | KR 2002-700479 | A3 20020112 |
| | | | US 2002-47464 | A3 20020114 |
| | | | US 2003-740264 | A1 20031217 |
| | | | US 2005-116777 | A3 20050428 |
| | | | US 2006-325059 | A1 20060103 |
| | | | US 2006-636181 | A1 20061208 |

OTHER SOURCE(S): MARPAT 134:116110
GI



AB Novel quinuclidine derivs. {I; = Ph, C4 to C9 heteroarom. compound containing one or more heteroatoms, or a naphthalenyl, tetrahydronaphthalenyl or biphenyl group; R1-R3 each independently = H, halogen, OH, Ph, OR4, SR4,

NR4R5, NHCOR4, CONR4R5, CN, NO2, COOR4, CF3, (un)substituted alkyl; (R4, R5 = H, (un)substituted alkyl, or together form an alicyclic ring); or R1 and R2 together = an aromatic, alicyclic or heterocyclic ring; n = an integer from 0 to 4; A = CH2, CH=CR6, CR6=CH, CR6R7, CO, O, S, S(O), SO2 or NR6; (R6, R7 = H, (un)substituted alkyl, or together form an alicyclic ring); m = an integer from 0 to 8; provided that when m = 0, A is not CH2; p = an integer from 1 to 2 and the substitution in the azoniabicyclic ring may be in the 2, 3 or 4 position including all possible configurations of the asym. carbons; B = R8-C(R9)R10- [R8, R9 each independently = (un)substituted Ph, (un)substituted 2- or 3-thiophenyl, (un)substituted 2- or 3-furanyl; R10 = H, OH, Me], or (II); Q = single bond, CH2, CH2-CH2, O, O-CH2, S, S-CH2 or CH=CH; and when II contain a chiral center they may represent either configuration}, X = pharmaceutically acceptable anion of a mono or polyvalent acid, which shows high affinity for muscarinic M3 receptors (Hm3), were prepd for the use in treatment of respiratory, urinary or gastrointestinal disease. Thus, 3(R)-(2-furan-2-yl-2-hydroxy-2-phenylacetoxy)-1-(3-phenoxypropyl)-1-azoniabicyclo[2.2.2]octane bromide was prepared by the reaction of phenoxypropyl bromide with (furan-2-yl)-hydroxy-phenylacetic acid -1-aza-bicyclo[2.2.2]oct-3(R)-yl ester and showed IC50 of 6.8 nM in human muscarinic receptor binding studies. Pharmaceutical compns. were also claimed.

IT 320346-98-3P 320346-99-4P 320347-00-0P
 320347-01-1P 320347-03-3P 320347-04-4P
 320347-06-6P 320347-08-8P 320347-10-2P
 320347-11-3P 320347-12-4P 320347-14-6P
 320347-16-8P 320347-18-0P 320347-20-4P
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 320347-25-9P 320347-27-1P 320347-30-6P
 320347-32-8P 320347-34-0P 320347-36-2P
 320347-38-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

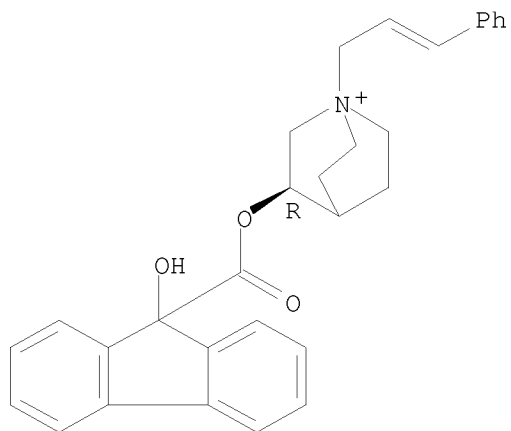
(preparation of novel quinuclidine derivs. for use as antimuscarinic agents)

RN 320346-98-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(3-phenyl-2-propen-1-yl)-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.

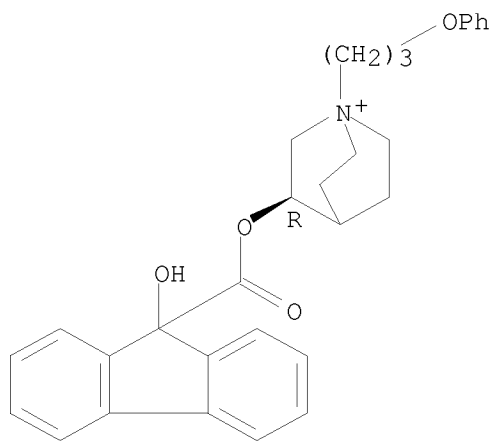
Double bond geometry unknown.



RN 320346-99-4 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(3-phenoxypropyl)-, bromide (1:1), (3R)- (CA INDEX NAME)

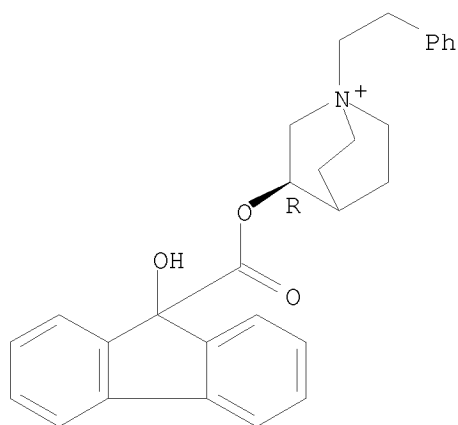
Absolute stereochemistry.



RN 320347-00-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(2-phenylethyl)-, bromide (1:1), (3R)- (CA INDEX NAME)

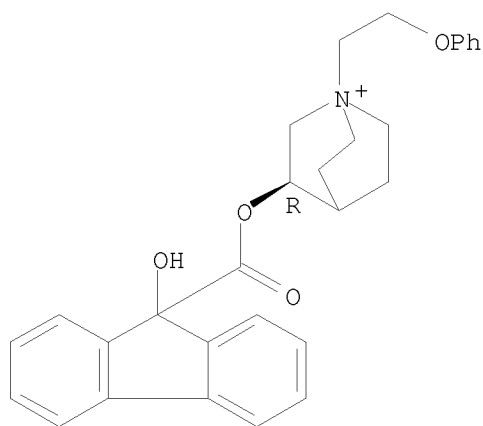
Absolute stereochemistry.



RN 320347-01-1 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(2-phenoxyethyl)-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 320347-03-3 CAPLUS

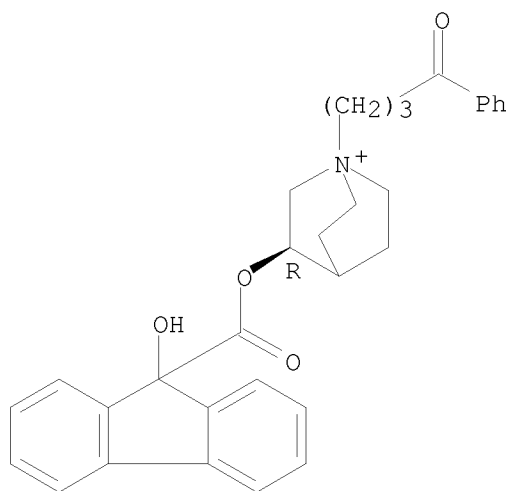
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(4-oxo-4-phenylbutyl)-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 320347-02-2

CMF C31 H32 N O4

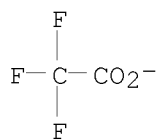
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2

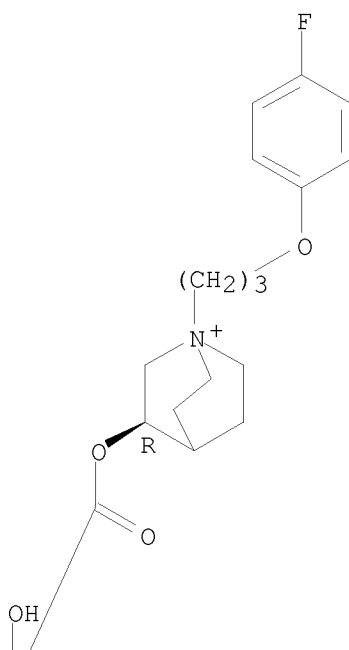


RN 320347-04-4 CAPLUS

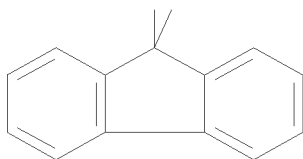
CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(4-fluorophenoxy)propyl]-3-[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-, chloride (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



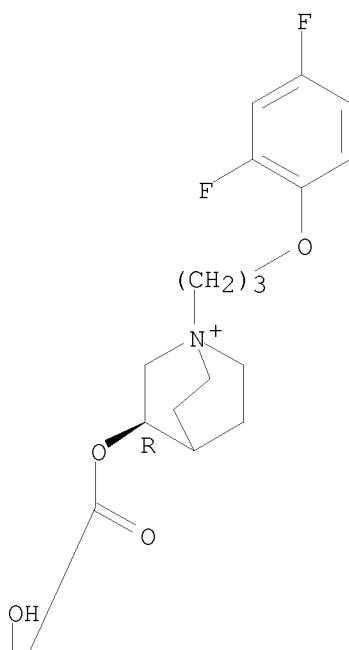
RN 320347-06-6 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(2,4-difluorophenoxy)propyl]-3-[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

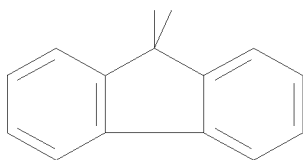
CRN 320347-05-5
CMF C30 H30 F2 N O4

Absolute stereochemistry.

PAGE 1-A



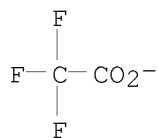
PAGE 2-A



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-08-8 CAPLUS

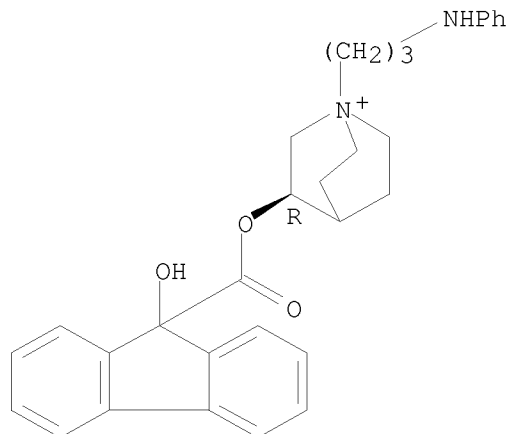
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[3-(phenylamino)propyl]oxy]-1-[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 320347-07-7

CMF C30 H33 N2 O3

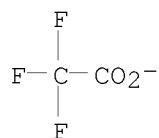
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-10-2 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-
1-[3-(4-hydroxyphenoxy)propyl]-, (3R)-, salt with trifluoroacetic acid
(1:1) (9CI) (CA INDEX NAME)

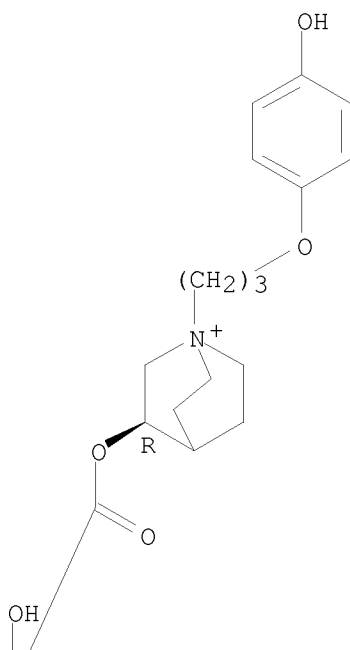
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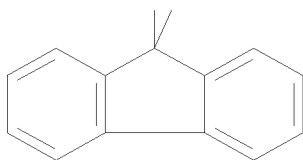
CMF C30 H32 N O5

Absolute stereochemistry.

PAGE 1-A



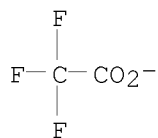
PAGE 2-A



CM 2

CRN 14477-72-6

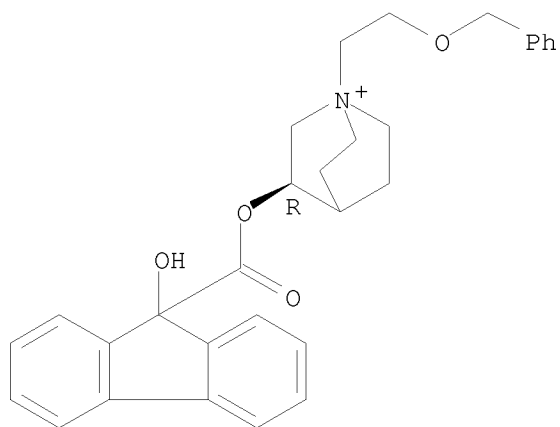
CMF C2 F3 O2



RN 320347-11-3 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-
1-[2-(phenylmethoxy)ethyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

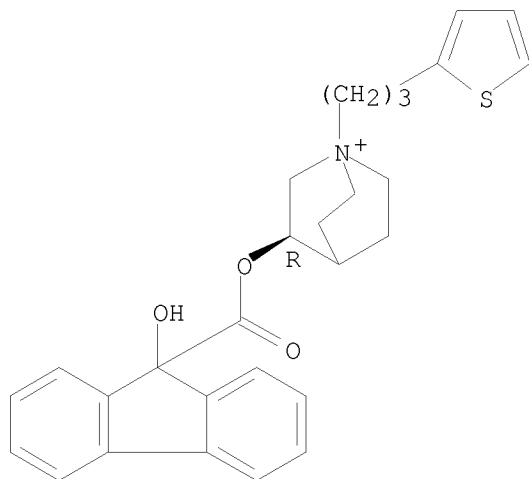
Absolute stereochemistry.



RN 320347-12-4 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-[3-(2-thienyl)propyl]-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 320347-14-6 CAPLUS

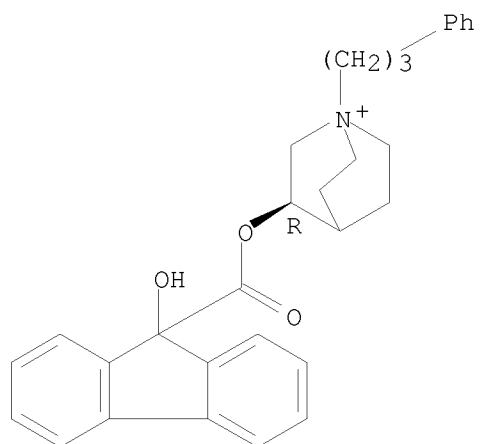
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(3-phenylpropyl)-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI)
(CA INDEX NAME)

CM 1

CRN 320347-13-5

CMF C30 H32 N O3

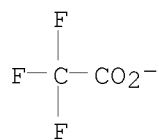
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-16-8 CAPLUS

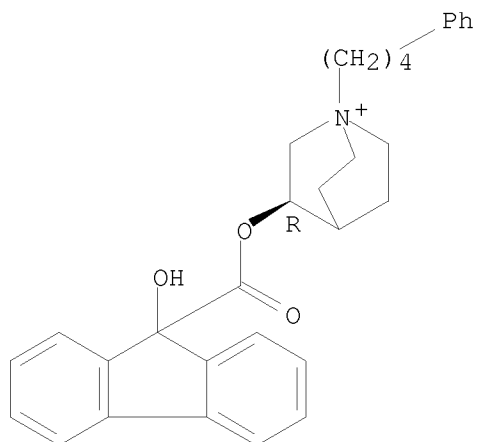
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(4-phenylbutyl)-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 320347-15-7

CMF C31 H34 N O3

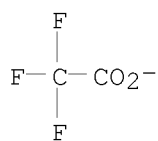
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-18-0 CAPLUS

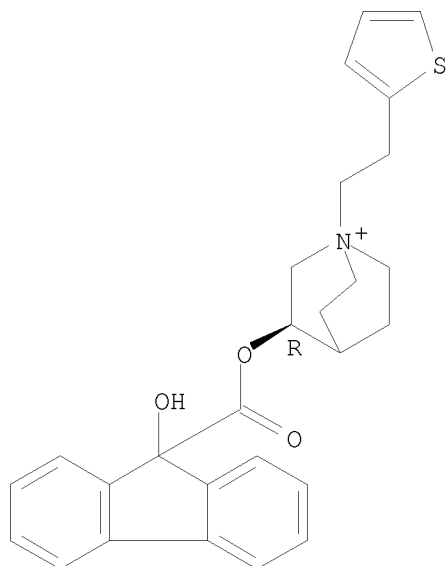
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-hydroxy-9H-fluoren-9-yl]carbonyl]oxy]-1-[2-(2-thienyl)ethyl]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI)
(CA INDEX NAME)

CM 1

CRN 320347-17-9

CMF C27 H28 N O3 S

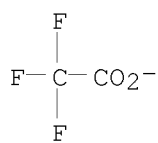
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-20-4 CAPLUS

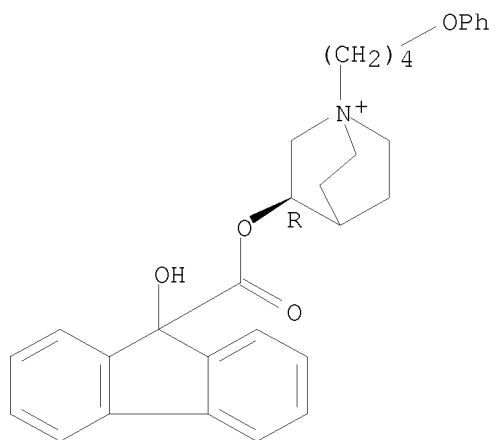
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy]-1-(4-phenoxybutyl)-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI)
(CA INDEX NAME)

CM 1

CRN 320347-19-1

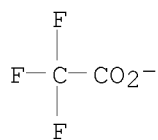
CMF C31 H34 N O4

Absolute stereochemistry.



CM 2

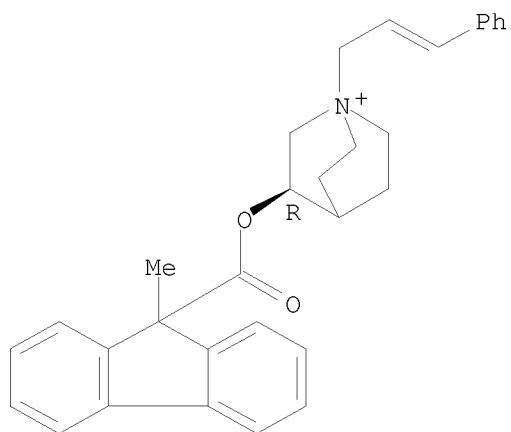
CRN 14477-72-6
CMF C2 F3 O2



RN 320347-21-5 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-1-(3-phenyl-2-propen-1-yl)-, bromide (1:1), (3R)- (CA INDEX NAME)

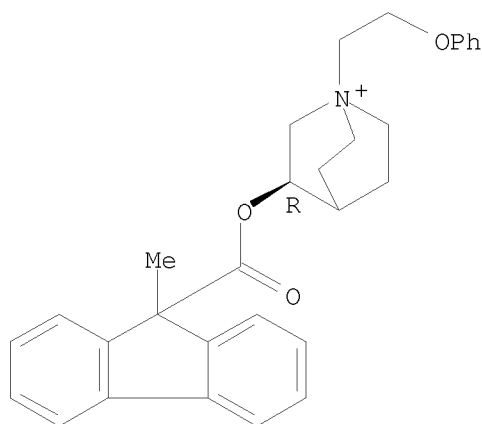
Absolute stereochemistry.
Double bond geometry unknown.



RN 320347-22-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-1-(2-phenoxyethyl)-, bromide (1:1), (3R)- (CA INDEX NAME)

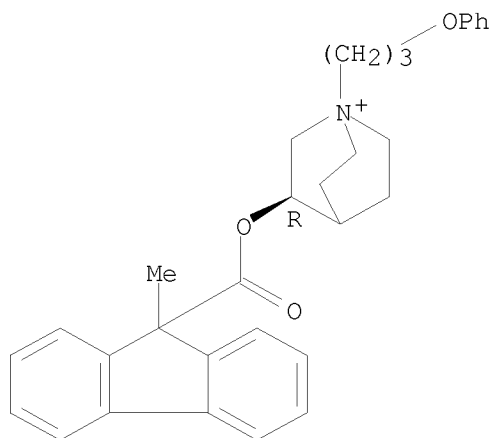
Absolute stereochemistry.



RN 320347-23-7 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-1-(3-phenoxypropyl)-, bromide (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.



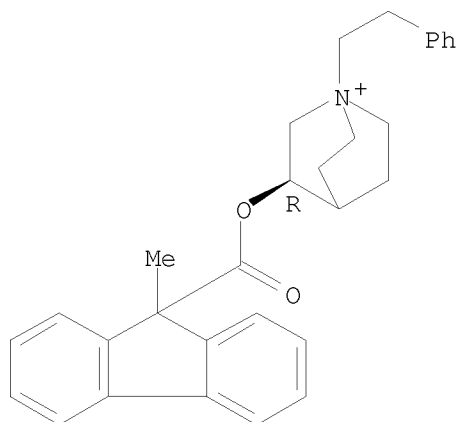
RN 320347-25-9 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-1-(2-phenylethyl)-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

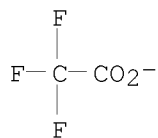
CRN 320347-24-8
CMF C30 H32 N O2

Absolute stereochemistry.



CM 2

CRN 14477-72-6
CMF C2 F3 O2

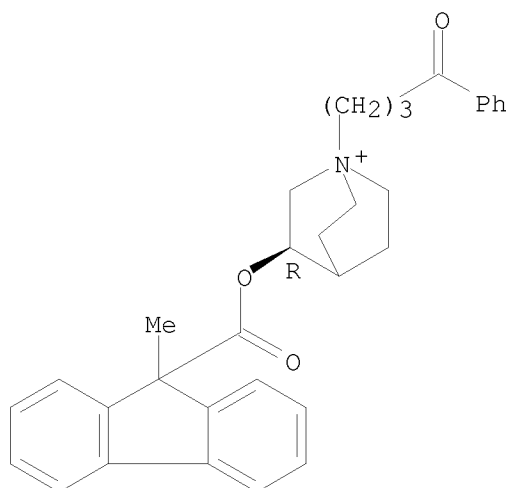


RN 320347-27-1 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-methyl-9H-fluoren-9-yl]carbonyl]oxy]-1-(4-oxo-4-phenylbutyl)-, (3R)-, salt with trifluoroacetic acid (1:1)
(9CI) (CA INDEX NAME)

CM 1

CRN 320347-26-0
CMF C32 H34 N O3

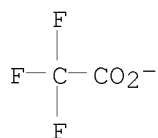
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-30-6 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(4-fluorophenoxy)propyl]-3-[[9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

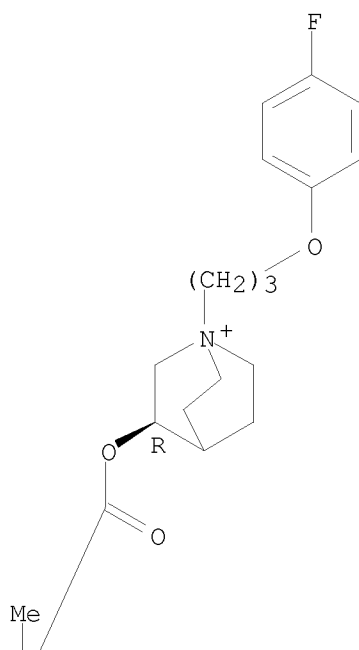
CM 1

CRN 320347-29-3

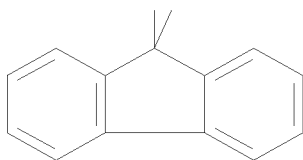
CMF C31 H33 F N O3

Absolute stereochemistry.

PAGE 1-A



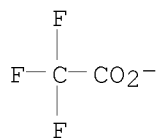
PAGE 2-A



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-32-8 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(2,4-difluorophenoxy)propyl]-3-[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

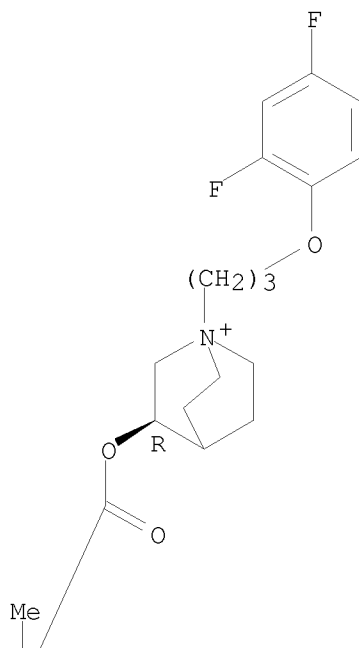
CM 1

CRN 320347-31-7

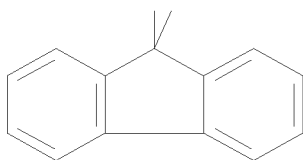
CMF C31 H32 F2 N O3

Absolute stereochemistry.

PAGE 1-A



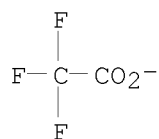
PAGE 2-A



CM 2

CRN 14477-72-6

CMF C2 F3 O2



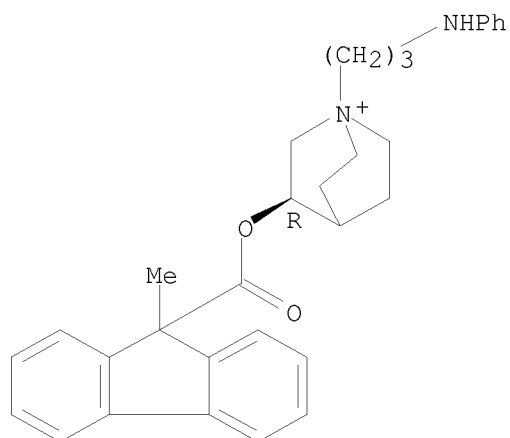
RN 320347-34-0 CAPLUS

CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-
1-[3-(phenylamino)propyl]-, (3R)-, salt with trifluoroacetic acid (1:1)
(9CI) (CA INDEX NAME)

CM 1

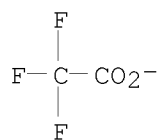
CRN 320347-33-9
CMF C31 H35 N2 O2

Absolute stereochemistry.



CM 2

CRN 14477-72-6
CMF C2 F3 O2



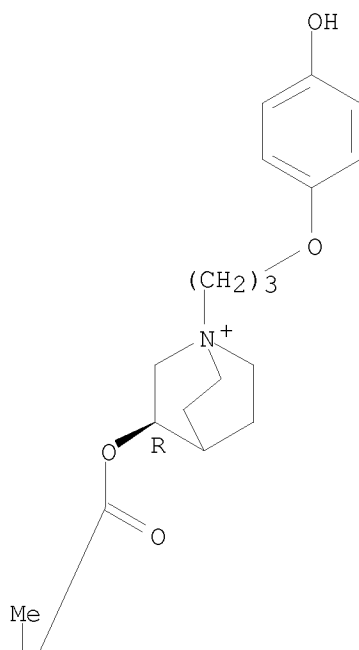
RN 320347-36-2 CAPLUS
CN 1-Azoniabicyclo[2.2.2]octane, 1-[3-(4-hydroxyphenoxy)propyl]-3-[[(9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-, (3R)-, salt with trifluoroacetic acid
(1:1) (9CI) (CA INDEX NAME)

CM 1

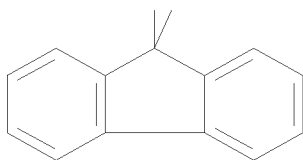
CRN 320347-35-1
CMF C31 H34 N O4

Absolute stereochemistry.

PAGE 1-A



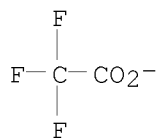
PAGE 2-A



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RN 320347-38-4 CAPLUS

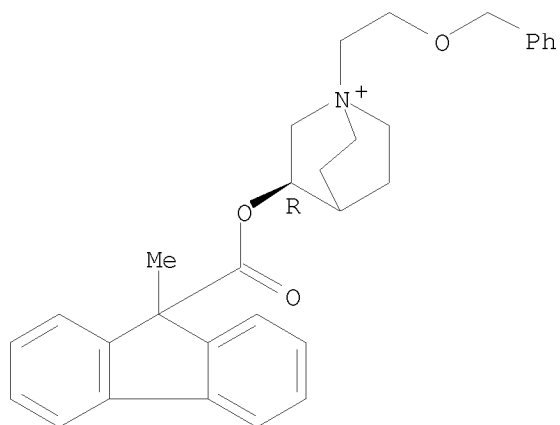
CN 1-Azoniabicyclo[2.2.2]octane, 3-[[[9-methyl-9H-fluoren-9-yl)carbonyl]oxy]-1-[2-(phenylmethoxy)ethyl]-, (3R)-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 320347-37-3

CMF C31 H34 N O3

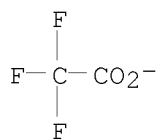
Absolute stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



IT 320348-03-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of novel quinuclidine derivs. for use as antimuscarinic agents)

RN 320348-03-6 CAPLUS

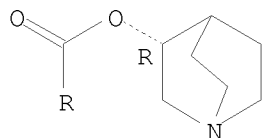
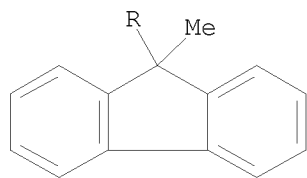
CN 9H-Fluorene-9-carboxylic acid, 9-methyl-, (3R)-1-azabicyclo[2.2.2]oct-3-yl ester, ethanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 320348-02-5

CMF C22 H23 N O2

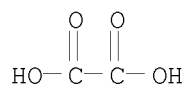
Absolute stereochemistry.



CM 2

CRN 144-62-7

CMF C2 H2 O4



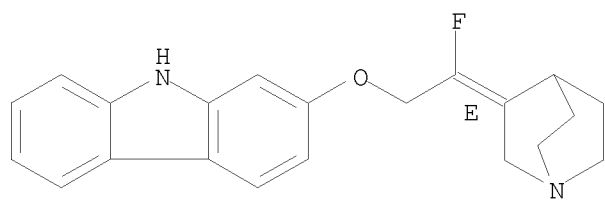
REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2000:656121 CAPLUS
 DOCUMENT NUMBER: 133:329358
 TITLE: YM-53601, a novel squalene synthase inhibitor, reduces plasma cholesterol and triglyceride levels in several animal species
 AUTHOR(S): Ugawa, Tohru; Kakuta, Hirotoshi; Moritani, Hiroshi; Matsuda, Koyo; Ishihara, Tsukasa; Yamaguchi, Motoko; Naganuma, Shin; Iizumi, Yuichi; Shikama, Hisataka
 CORPORATE SOURCE: Cardiovascular Diseases Research, Institute for Drug Discovery Research, Yamanouchi Pharmaceutical Co., Ltd., Tsukuba, 305-8585, Japan
 SOURCE: British Journal of Pharmacology (2000), 131(1), 63-70
 CODEN: BJPCBM; ISSN: 0007-1188
 PUBLISHER: Nature Publishing Group
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The aim of this study was to evaluate the potency of YM-53601 ((E)-2-[2-fluoro-2-(quinuclidin-3-ylidene) ethoxy]-9H-carbazole monohydrochloride), a new inhibitor of squalene synthase, in reducing both plasma cholesterol and triglyceride levels, compared with 3-hydroxy-3-methylglutaryl CoA (HMG-CoA) reductase inhibitor and fibrates, resp. YM-53601 equally inhibited squalene synthase activities in hepatic microsomes prepared from several animal species and also suppressed cholesterol biosynthesis in rats (ED50, 32 mg kg⁻¹). In guinea-pigs, YM-53601 and pravastatin reduced plasma nonHDL-C (=total cholesterol - high d. lipoprotein cholesterol) by 47% (P < 0.001) and 33% (P < 0.001), resp. (100 mg kg⁻¹, daily for 14 days). In rhesus monkeys, YM-53601 decreased plasma nonHDL-C by 37% (50 mg kg⁻¹, twice daily for 21 days, P < 0.01), whereas the HMG-CoA reductase inhibitor, pravastatin, failed to do (25 mg kg⁻¹, twice daily for 28 days). YM-53601 caused plasma triglyceride reduction in hamsters fed a normal diet (81% decrease at 50 mg kg⁻¹, daily for 5 days, P < 0.001). In hamsters fed a high-fat diet, the ability of YM-53601 to lower triglyceride (by 73%, P < 0.001) was superior to that of fenofibrate (by 53%, P < 0.001), the most potent fibrate (dosage of each drug: 100 mg kg⁻¹, daily for 7 days). This is the first report that a squalene synthase inhibitor is superior to an HMG-CoA reductase inhibitor in lowering plasma nonHDL-C level in rhesus monkeys and is superior to a fibrate in significantly lowering plasma triglyceride level. YM-53601 may therefore prove useful in treating hypercholesterolemia and hypertriglyceridemia in humans.
 IT 182959-33-7, YM 53601
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (YM-53601, a novel squalene synthase inhibitor, reduces plasma cholesterol and triglyceride levels in several animal species)
 RN 182959-33-7 CAPLUS
 CN 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

Double bond geometry as shown.



● HCl

REFERENCE COUNT:

30

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:42199 CAPLUS
DOCUMENT NUMBER: 132:222426
TITLE: The synthesis and functionalization of quinuclidine enamine N-oxide and borane complex
AUTHOR(S): O'Neil, Ian A.; Wynn, Duncan; Lai, Justine Y. Q.
CORPORATE SOURCE: Department of Chemistry, University of Liverpool, Liverpool, L69 7ZD, UK
SOURCE: Tetrahedron Letters (1999), Volume Date 2000, 41(2), 271-274
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:222426
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The synthesis of quinuclidine enamine N-oxide and quinuclidine enamine borane complex is described. Selective deprotonation of the double bond with Me₃CLi allows direct functionalization at the α -position with a range of electrophiles. E.g., treatment of 3-hydroxyquinuclidine with tosyl chloride in the presence of Et₃N gives 3-quinuclidinol tosylate (I) in 83-90% yield; treatment of I with m-chloroperbenzoic acid gives the quinuclidinol tosylate N-oxide II in 76% yield which undergoes elimination with Me₃COK in THF to give the enamide N-oxide III in 80% yield. E.g., treatment of I with borane gives the N-trihydridoborane quinuclidinol tosylate IV in 100% yield; IV undergoes elimination with Me₃COK in THF to give the enamide N-borane complex V in 52% yield. E.g., treatment of III with Me₃CLi in THF at -45° followed by addition of 9-fluorenone gives the quinuclidine VI regioselectively in 85% yield.

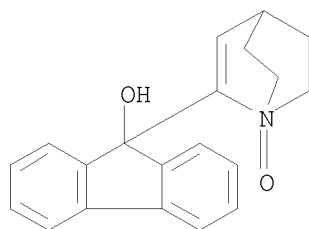
IT 260411-40-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of quinuclidine enamide N-oxide and borane complex derivs. by α -deprotonation followed by addition to carbonyl compds. and reaction with electrophiles)

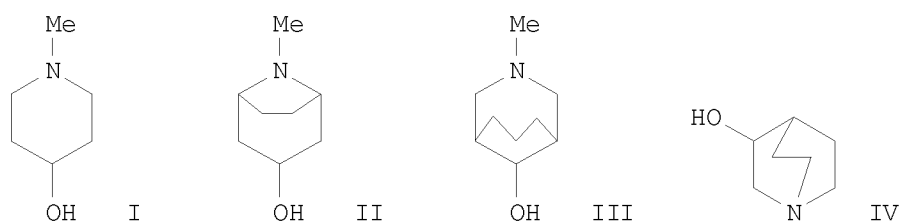
RN 260411-40-3 CAPLUS

CN 9H-Fluoren-9-ol, 9-(1-oxido-1-azabicyclo[2.2.2]oct-2-en-2-yl)- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 1999:159472 CAPLUS
 DOCUMENT NUMBER: 130:251985
 TITLE: Stereochemistry of the heterocyclic alcohols
 containing piperidine unit
 AUTHOR(S): Gao, Shou-Hai; Hu, Wen-Xiang; Yun, Liu-Hong
 CORPORATE SOURCE: Institute of Pharmacology and Toxicology, Academy of
 Military Medical Sciences, Beijing, 100850, Peop. Rep.
 China
 SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1999), 20(2), 232-236
 CODEN: KTHPDM; ISSN: 0251-0790
 PUBLISHER: Gaodeng Jiaoyu Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 GI



AB The stereochem. of the heterocyclic alcs. (1-4 = I-IV) containing piperidine unit was studied on the basis of the results of mol. mechanics and quantum chemical calcns. The results showed that there existed non-classical orbital super-conjugated interactions between the nitrogen atom and oxygen atom which caused the conformations to be more stable when the hydroxylic group lay at axial than at equatorial with respect to the piperidine ring in compound 1 and compound 3. If the axial hydrogen atoms at C2 and C6 positions in the piperidine ring were substituted, or the mol. existed in the polar solns., this non-classical orbital super-conjugated interactions would be much weaker. In this case, the conformations were more stable when the hydroxylic group was equatorial.

IT 221671-34-7 221671-42-7

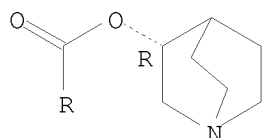
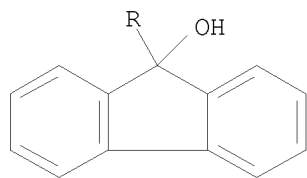
RL: PRP (Properties)

(mol. mechanics and AM1 study of the conformation of heterocyclic piperidine alcs. and of piperidinyl hydroxycarboxylates)

RN 221671-34-7 CAPLUS

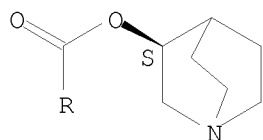
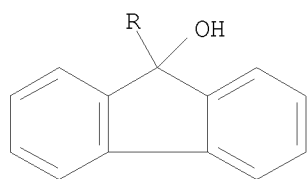
CN 9H-Fluorene-9-carboxylic acid, 9-hydroxy-,
 (3R)-1-azabicyclo[2.2.2]oct-3-yl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 221671-42-7 CAPLUS
 CN 9H-Fluorene-9-carboxylic acid, 9-hydroxy-,
 (3S)-1-azabicyclo[2.2.2]oct-3-yl ester (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

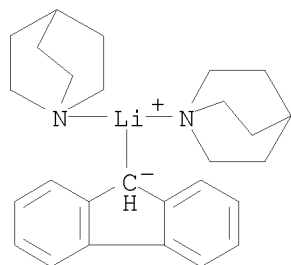
ACCESSION NUMBER: 1996:705835 CAPLUS
DOCUMENT NUMBER: 126:31393
ORIGINAL REFERENCE NO.: 126:6389a,6392a
TITLE: Structural studies of fluorenyllithium complexes using
7Li solid-state NMR spectroscopy
AUTHOR(S): Johnels, Dan; Andersson, Anders; Boman, Arne; Edlund,
Ulf
CORPORATE SOURCE: Dep. Organic Chem., Umea Univ., Umea, S901 87, Swed.
SOURCE: Magnetic Resonance in Chemistry (1996), 34(11),
908-912
CODEN: MRCHEG; ISSN: 0749-1581
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effect on the solid-state 7Li chemical shifts and quadrupolar coupling
consts. of different locations of the Li cation relative to the carbanion
framework of delocalized carbanions was studied. When the Li cation is
situated above the conjugated system, the chemical shift is .apprx.-7 ppm as
expected, and around -2 ppm otherwise. The quadrupolar coupling consts.
is necessary to retrieve the correct structural information.

IT 125109-68-4
RL: PRP (Properties)
(structural studies using Li-7 chemical shift, quadrupolar coupling
consts. and elec. field gradient of solid-state NMR of)

RN 125109-68-4 CAPLUS

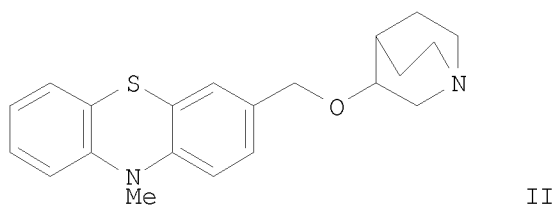
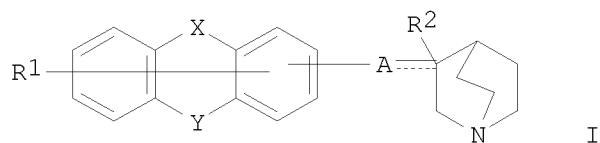
CN Lithium, bis(1-azabicyclo[2.2.2]octane)-9H-fluoren-9-yl- (9CI) (CA INDEX
NAME)



L3 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:664615 CAPLUS
DOCUMENT NUMBER: 125:301007
ORIGINAL REFERENCE NO.: 125:56343a,56346a
TITLE: Preparation of quinuclidine derivatives having
tricyclic fused hetero rings as squalene synthase
inhibitors
INVENTOR(S): Isaka, Masahiko; Ishihara, Tsukasa; Matsuda, Koyo;
Kakuta, Hirotoshi; Moritani, Hiroshi
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------|-----------------|------------|
| WO 9626938 | A1 | 19960906 | WO 1996-JP491 | 19960301 |
| W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2213706 | A1 | 19960906 | CA 1996-2213706 | 19960301 |
| AU 9648440 | A | 19960918 | AU 1996-48440 | 19960301 |
| AU 696626 | B2 | 19980917 | | |
| EP 812840 | A1 | 19971217 | EP 1996-904296 | 19960301 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI | | | | |
| CN 1177353 | A | 19980325 | CN 1996-192277 | 19960301 |
| HU 9801361 | A2 | 19980928 | HU 1998-1361 | 19960301 |
| HU 9801361 | A3 | 19981028 | | |
| US 5830902 | A | 19981103 | US 1997-894549 | 19970821 |
| PRIORITY APPLN. INFO.: | | | JP 1995-43325 | A 19950302 |
| | | | JP 1995-125050 | A 19950524 |
| | | | WO 1996-JP491 | W 19960301 |
| OTHER SOURCE(S): | | MARPAT 125:301007 | | |
| GI | | | | |



AB The title compds. I [R1 represents hydrogen, halogeno or lower alkyl; R2

represents hydrogen, hydroxy or lower alkoxy; the dotted line represents a single bond or a double bond, provided that R2 is absent when the dotted line indicates a double bond; X and Y are the same or different and each represents bond, oxygen, carbonyl, S(O)p or NR3, wherein p is 0, 1 or 2, and R3 represents hydrogen or optionally substituted lower alkyl; A represents saturated or unsatd. lower alkylene, etc.] are prepared. The title compound II in vitro showed IC50 of 85 nM against squalene synthase.

IT 182959-28-0P 182959-33-7P 182959-40-6P
 182959-44-0P 182959-46-2P 182959-50-8P
 182959-54-2P 182959-60-0P 182959-67-7P
 182959-72-4P 182959-79-1P 182959-85-9P
 182959-90-6P 182961-13-3P

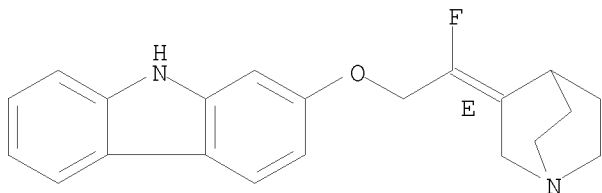
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(quinuclidine derivs. having tricyclic fused hetero rings with squalene synthase inhibiting activity)

RN 182959-28-0 CAPLUS

CN 9H-Carbazole, 2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, (E)- (9CI) (CA INDEX NAME)

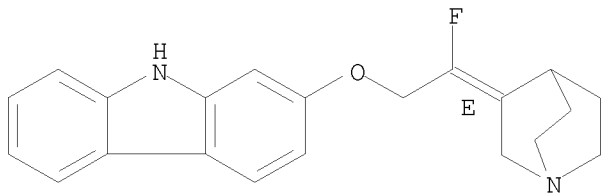
Double bond geometry as shown.



RN 182959-33-7 CAPLUS

CN 9H-Carbazole, 2-[(2E)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, hydrochloride (1:1) (CA INDEX NAME)

Double bond geometry as shown.

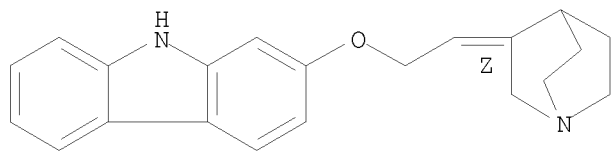


● HCl

RN 182959-40-6 CAPLUS

CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.

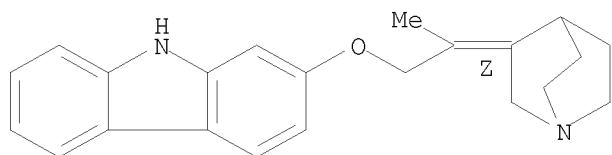


● HCl

RN 182959-44-0 CAPLUS

CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)propoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.

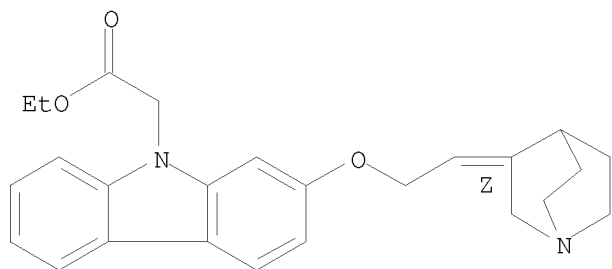


● HCl

RN 182959-46-2 CAPLUS

CN 9H-Carbazole-9-acetic acid, 2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-, ethyl ester, monohydrochloride, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

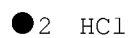
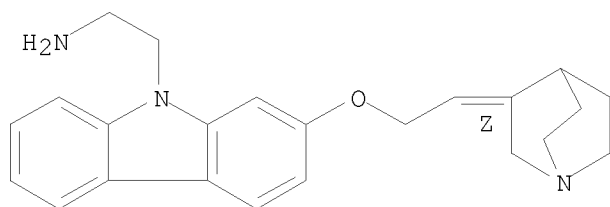


● HCl

RN 182959-50-8 CAPLUS

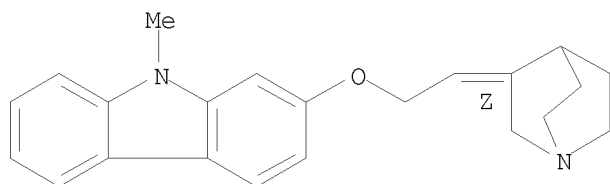
CN 9H-Carbazole-9-ethanamine, 2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-, dihydrochloride, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



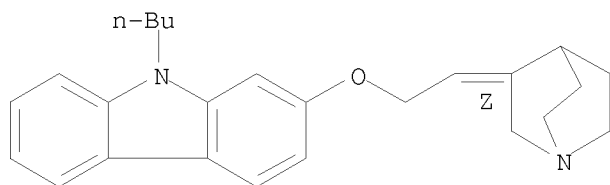
RN 182959-54-2 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.



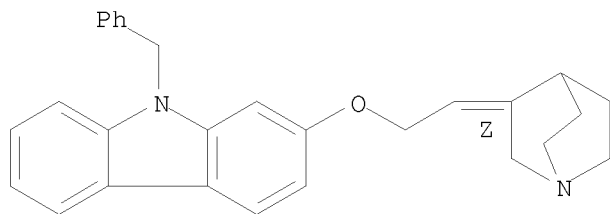
RN 182959-60-0 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-butyl-, monohydrochloride (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 182959-67-7 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-(phenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

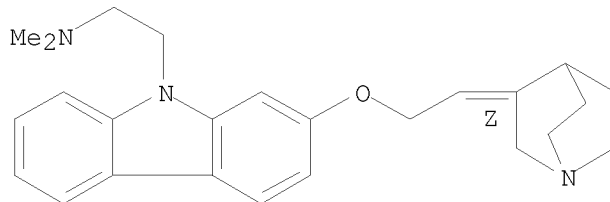
Double bond geometry as shown.



● HCl

RN 182959-72-4 CAPLUS
 CN 9H-Carbazole-9-ethanamine, 2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-N,N-dimethyl-, dihydrochloride, (Z)- (9CI) (CA INDEX NAME)

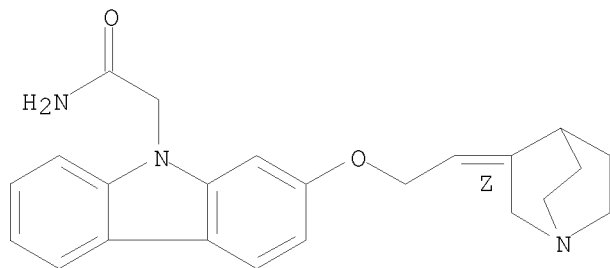
Double bond geometry as shown.



● 2 HCl

RN 182959-79-1 CAPLUS
 CN 9H-Carbazole-9-acetamide, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

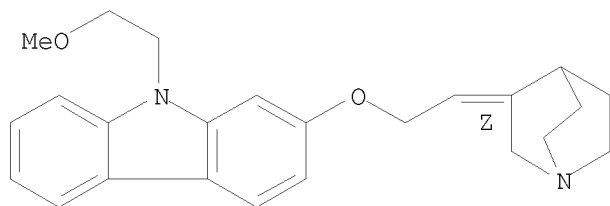
Double bond geometry as shown.



● HCl

RN 182959-85-9 CAPLUS
 CN 9H-Carbazole, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-(2-methoxyethyl)- (CA INDEX NAME)

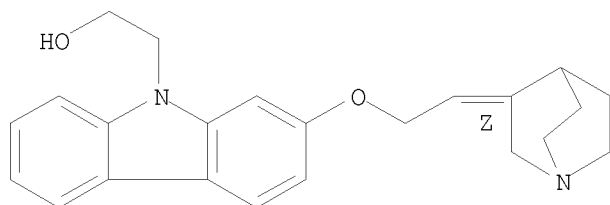
Double bond geometry as shown.



RN 182959-90-6 CAPLUS

CN 9H-Carbazole-9-ethanol, 2-[(2Z)-2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]- (CA INDEX NAME)

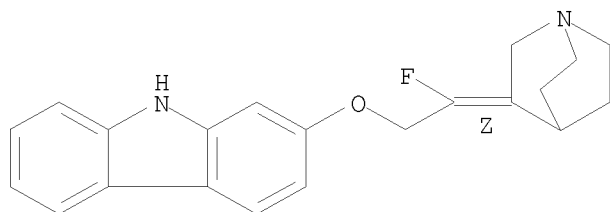
Double bond geometry as shown.



RN 182961-13-3 CAPLUS

CN 9H-Carbazole, 2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-, monohydrochloride, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



● HCl

IT 182961-43-9P 182961-46-2P 182961-48-4P

182961-49-5P 182961-50-8P 182961-51-9P

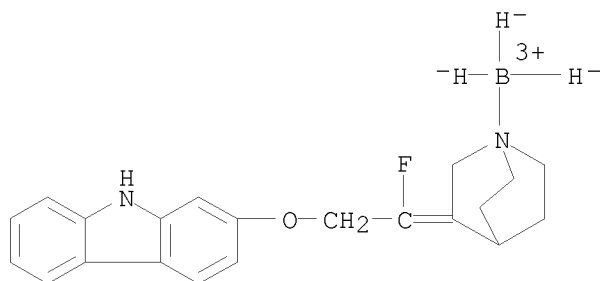
182961-52-0P 183075-41-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(quinuclidine derivs. having tricyclic fused hetero rings with squalene synthase inhibiting activity)

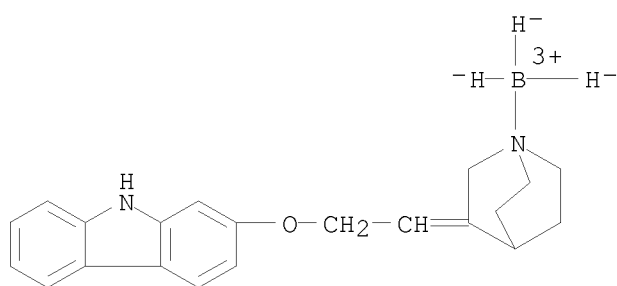
RN 182961-43-9 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-9H-carbazole-N2]trihydro-, [T-4-(E)]- (9CI) (CA INDEX NAME)



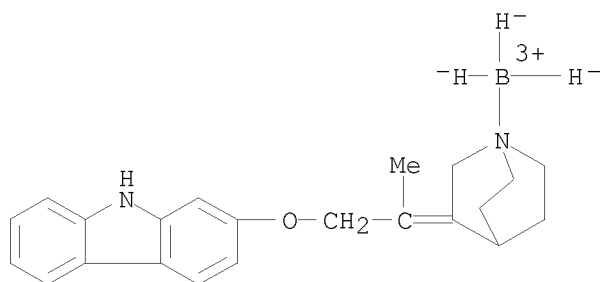
RN 182961-46-2 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



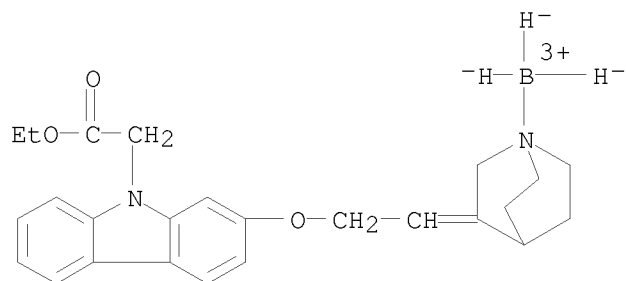
RN 182961-48-4 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)propoxy]-9H-carbazole-N2]-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



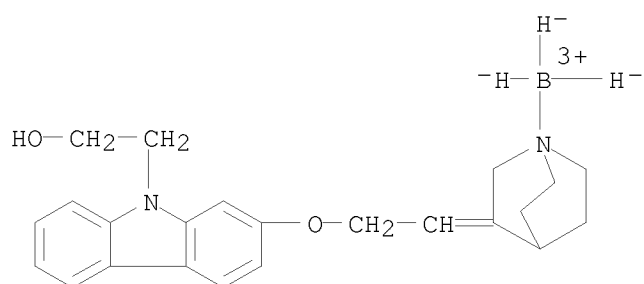
RN 182961-49-5 CAPLUS

CN Boron, [ethyl 2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-9-acetate-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



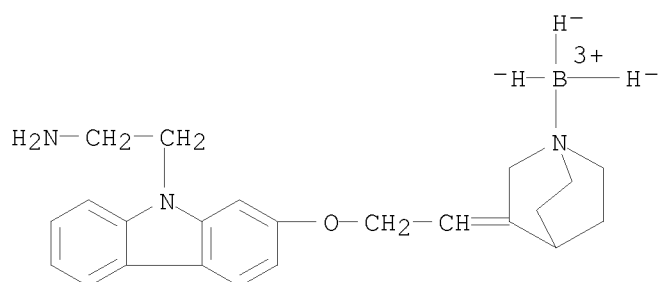
RN 182961-50-8 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-9-ethanol-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



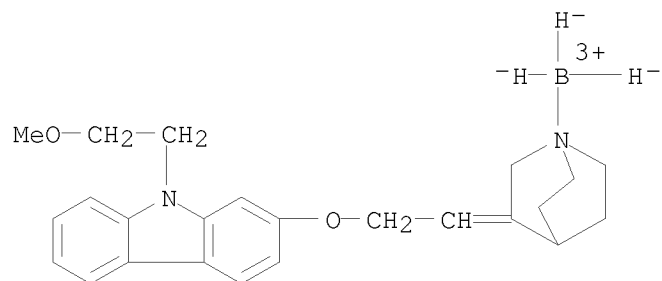
RN 182961-51-9 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9H-carbazole-9-ethanamine-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



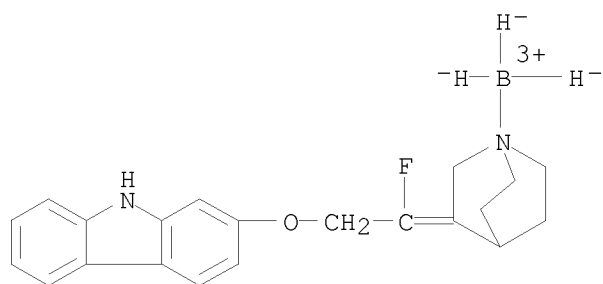
RN 182961-52-0 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)ethoxy]-9-(2-methoxyethyl)-9H-carbazole-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



RN 183075-41-4 CAPLUS

CN Boron, [2-[2-(1-azabicyclo[2.2.2]oct-3-ylidene)-2-fluoroethoxy]-9H-carbazole-N2]trihydro-, [T-4-(Z)]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

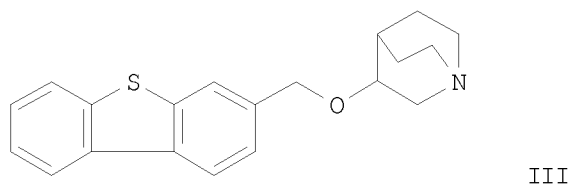
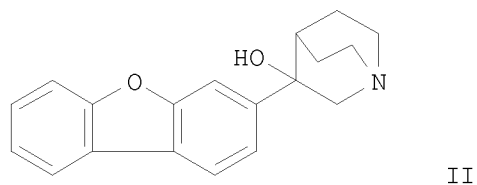
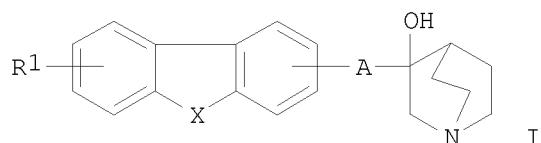
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THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 1996:509522 CAPLUS
 DOCUMENT NUMBER: 125:167796
 ORIGINAL REFERENCE NO.: 125:31441a
 TITLE: Preparation of quinuclidine derivatives as squalene synthase inhibitors
 INVENTOR(S): Isaka, Masahiko; Ishihara, Tsukasa; Kazuta, Kenichi; Suga, Akira; Matsuda, Mitsuaki; Tsunoda, Hirotohi; Moritani, Hiroshi
 PATENT ASSIGNEE(S): Yamanouchi Pharma Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|-----------------|----------|
| JP 08134067 | A | 19960528 | JP 1994-277884 | 19941111 |
| PRIORITY APPLN. INFO.: | | | JP 1994-277884 | 19941111 |
| OTHER SOURCE(S): | MARPAT | 125:167796 | | |

GI



AB The title compds. [I; R1 = H, NO₂, NH₂, lower acylamino; X = CH₂, CO, O, S, NH, lower alkylimino; A = single bond, (un)saturated C2-4 alkylene in which any one of C atoms optionally is replaced by O, S, NH, or lower alkylimino] or salts thereof, which are safe inhibitors of cholesterol biosynthesis and useful as antihyperlipidemics for preventing and treating arteriosclerosis, are prepared Thus, 3-bromoquinuclidine in THF was treated with BuLi in hexane at -78°, stirred for 3 h, treated with a solution of 3-quinuclidine in THF, and stirred at -78° for 20 min and at 0° for 10 min to give dibenzofuranylquinuclidinol (II) (44%). A dibenzothiophenymethylquinuclidine derivative (III.HCl) showed IC₅₀ of 7.6 + 10⁻⁸ M against rat squalene synthase.

IT 180154-59-0P 180154-61-4P 180154-63-6P

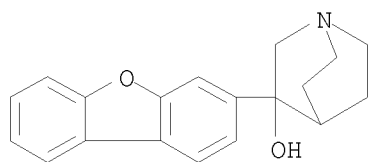
180154-64-7P 180154-66-9P 180154-69-2P
 180154-71-6P 180154-72-7P 180154-74-9P
 180154-75-0P 180154-77-2P 180154-80-7P
 180154-82-9P 180154-83-0P 180154-84-1P
 180154-86-3P 180154-87-4P 180154-90-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinuclidine derivs. as squalene synthase inhibitors, antihyperlipidemics, and antiarteriosclerotics)

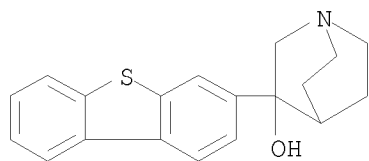
RN 180154-59-0 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-(3-dibenzofuranyl)- (CA INDEX NAME)



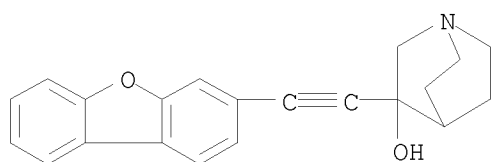
RN 180154-61-4 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-(3-dibenzothienyl)- (CA INDEX NAME)



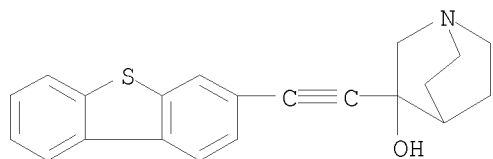
RN 180154-63-6 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(3-dibenzofuranyl)ethynyl]- (CA INDEX NAME)



RN 180154-64-7 CAPLUS

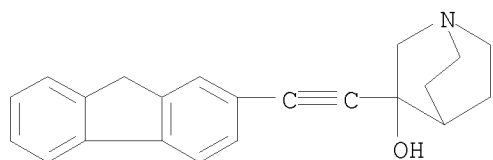
CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(3-dibenzothienyl)ethynyl]- (CA INDEX NAME)



RN 180154-66-9 CAPLUS

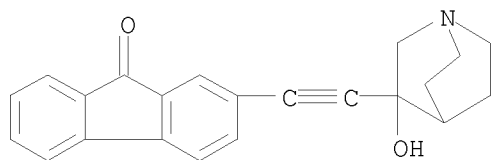
CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(9H-fluoren-2-yl)ethynyl]- (CA INDEX NAME)

NAME)



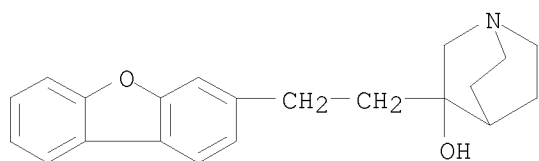
RN 180154-69-2 CAPLUS

CN 9H-Fluoren-9-one, 2-[2-(3-hydroxy-1-azabicyclo[2.2.2]oct-3-yl)ethynyl]-
(CA INDEX NAME)



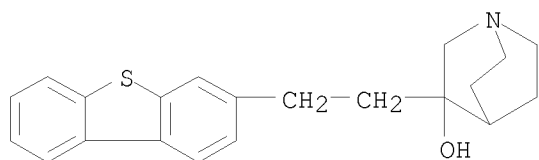
RN 180154-71-6 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(3-dibenzofuranyl)ethyl]- (CA INDEX
NAME)



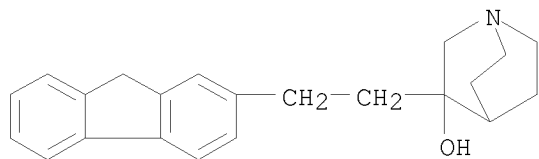
RN 180154-72-7 CAPLUS

CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(3-dibenzothiienyl)ethyl]- (CA INDEX
NAME)

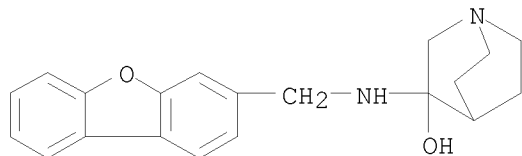


RN 180154-74-9 CAPLUS

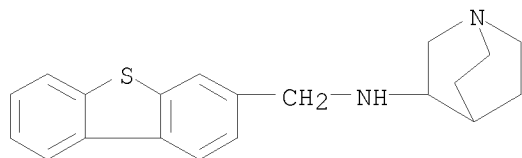
CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[2-(9H-fluoren-2-yl)ethyl]- (CA INDEX
NAME)



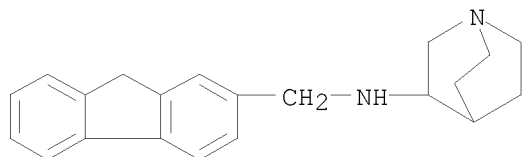
RN 180154-75-0 CAPLUS
 CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-[(3-dibenzofuranylmethyl)amino]- (CA INDEX NAME)



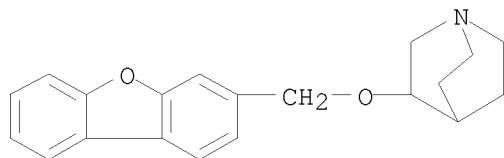
RN 180154-77-2 CAPLUS
 CN 1-Azabicyclo[2.2.2]octan-3-amine, N-(3-dibenzothiienylmethyl)- (CA INDEX NAME)



RN 180154-80-7 CAPLUS
 CN 1-Azabicyclo[2.2.2]octan-3-amine, N-(9H-fluoren-2-ylmethyl)- (CA INDEX NAME)

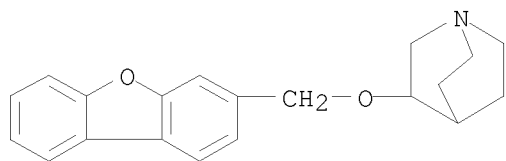


RN 180154-82-9 CAPLUS
 CN 1-Azabicyclo[2.2.2]octane, 3-(3-dibenzofuranylmethoxy)-, hydrochloride (1:1) (CA INDEX NAME)



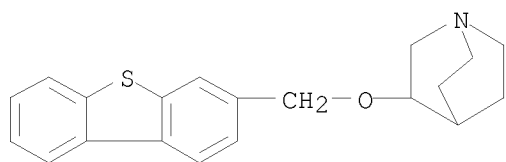
● HCl

RN 180154-83-0 CAPLUS
 CN 1-Azabicyclo[2.2.2]octane, 3-(3-dibenzofuranylmethoxy)- (CA INDEX NAME)



RN 180154-84-1 CAPLUS

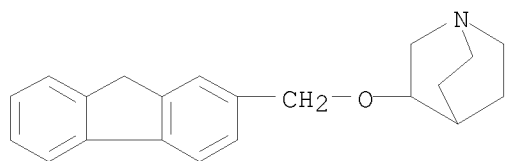
CN 1-Azabicyclo[2.2.2]octane, 3-(3-dibenzothienylmethoxy)-, hydrochloride
(1:1) (CA INDEX NAME)



● HCl

RN 180154-86-3 CAPLUS

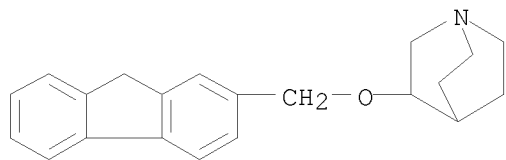
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-ylmethoxy)-, hydrochloride
(1:1) (CA INDEX NAME)



● HCl

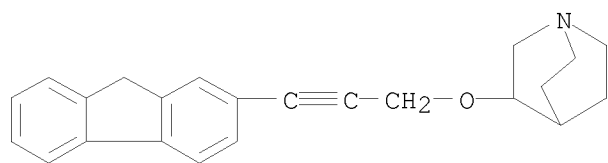
RN 180154-87-4 CAPLUS

CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-ylmethoxy)- (CA INDEX NAME)

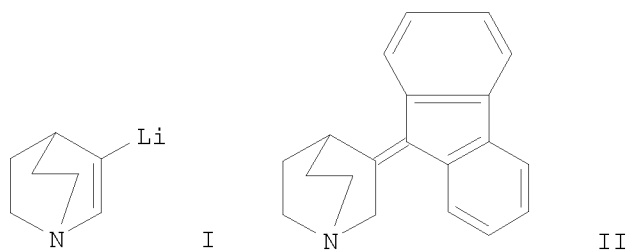


RN 180154-90-9 CAPLUS

CN 1-Azabicyclo[2.2.2]octane, 3-[[3-(9H-fluoren-2-yl)-2-propyn-1-yl]oxy]-
(CA INDEX NAME)



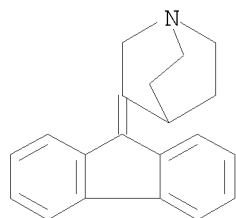
ACCESSION NUMBER: 1995:301499 CAPLUS
 DOCUMENT NUMBER: 122:132950
 ORIGINAL REFERENCE NO.: 122:24791a,24794a
 TITLE: 3-Lithioquinuclidin-2-ene: a novel intermediate for the synthesis of muscarinic agonists and antagonists
 AUTHOR(S): Nordvall, Gunnar; Sundquist, Staffan; Nilvebrant, Lisbeth; Hacksell, Uli
 CORPORATE SOURCE: Department of Organic Pharmaceutical Chemistry, Uppsala Univ., Uppsala, S-751 23, Swed.
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1994), 4(24), 2837-40
 CODEN: BMCLE8; ISSN: 0960-894X
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 122:132950
 GI



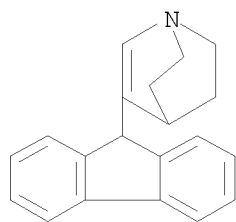
AB A method for the generation of 3-lithioquinuclidin-2-ene (I) as a nucleophilic intermediate for the synthesis of 3-substituted quinuclidin-2-enes is presented. The quinuclidine moiety is a mimic for the quaternary nitrogen in acetylcholine. An example compound is 3-(9H-fluoren-9-ylidene)-1-azabicyclo[2.2.2]octane (II).

IT 56490-07-4P, 3-(9H-Fluoren-9-ylidene)-1-azabicyclo[2.2.2]octane 160892-50-2P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of quinuclidine derivs. muscarinic agonists and antagonists)

RN 56490-07-4 CAPLUS
 CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-9-ylidene)- (CA INDEX NAME)



RN 160892-50-2 CAPLUS
 CN 1-Azabicyclo[2.2.2]oct-2-ene, 3-(9H-fluoren-9-yl)- (CA INDEX NAME)



L3 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:98592 CAPLUS
DOCUMENT NUMBER: 112:98592
ORIGINAL REFERENCE NO.: 112:16779a,16782a
TITLE: Solid state carbon-13 NMR studies of lithium
fluorenide complexes
AUTHOR(S): Johnels, Dan; Edlund, Ulf
CORPORATE SOURCE: Dep. Org. Chem., Univ. Umea, Umea, S-901 87, Swed.
SOURCE: Journal of the American Chemical Society (1990),
112(4), 1647-9
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

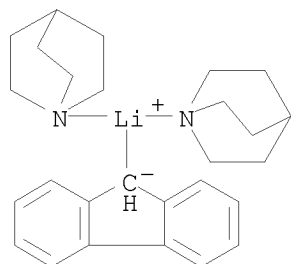
AB A ¹³C CP/MAS study of lithium fluorenide complexes shows that the lithium arrangement in the solid state is dependent on the ether or amine ligands used for complexation. As also suggested from earlier x-ray studies, the quinuclidine complex prefers an asym. structure. This is also the case for the di-Et ether complex while a sym. arrangement is proposed using N,N,N',N'-tetramethylenediamine or THF ligands.

IT 125109-68-4 125109-69-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(carbon-13 cross polarization/magic angle spinning NMR of)

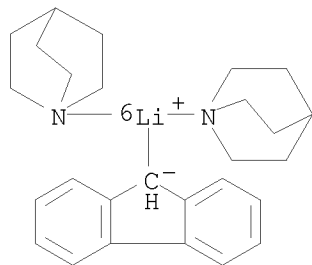
RN 125109-68-4 CAPLUS

CN Lithium, bis(1-azabicyclo[2.2.2]octane)-9H-fluoren-9-yl- (9CI) (CA INDEX NAME)



RN 125109-69-5 CAPLUS

CN Lithium-6Li, bis(1-azabicyclo[2.2.2]octane)-9H-fluoren-9-yl- (9CI) (CA INDEX NAME)

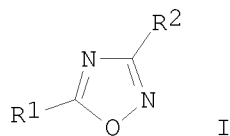


L3 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:407414 CAPLUS
DOCUMENT NUMBER: 111:7414
ORIGINAL REFERENCE NO.: 111:1423a,1426a
TITLE: Preparation of oxadiazoles as muscarinic agonist and
CNS pro-drugs
INVENTOR(S): Baker, Raymond; Saunders, John; MacLeod, Angus Murray;
Showell, Graham Andrew
PATENT ASSIGNEE(S): Merck Sharp and Dohme Ltd., UK
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------------------------------------------|--------|----------|-----------------|------------|
| ----- | --- | ----- | ----- | ----- |
| EP 301729 | A1 | 19890201 | EP 1988-306388 | 19880713 |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| IL 87106 | A | 19930708 | IL 1988-87106 | 19880714 |
| US 5242927 | A | 19930907 | US 1988-220209 | 19880718 |
| DK 8804075 | A | 19890407 | DK 1988-4075 | 19880721 |
| ZA 8805297 | A | 19890628 | ZA 1988-5297 | 19880721 |
| AU 8819739 | A | 19890127 | AU 1988-19739 | 19880722 |
| AU 613383 | B2 | 19910801 | | |
| JP 01047775 | A | 19890222 | JP 1988-181961 | 19880722 |
| PRIORITY APPLN. INFO.: | | | GB 1987-17446 | A 19870723 |
| OTHER SOURCE(S): | MARPAT | 111:7414 | | |

GI

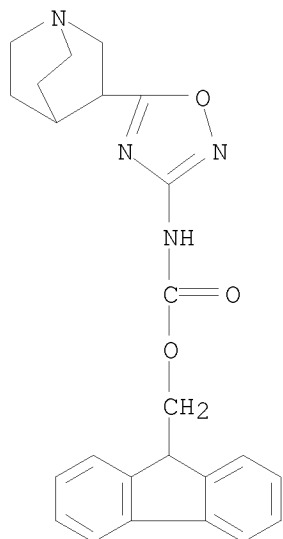


AB The title compds. (I; R1 = nonarom. azacyclyl or azabicyclyl; R2 = group convertible in vivo to an amino group), useful as CNS agents (no data), were prepared Octanoyl chloride was added to a mixture of 3-[5-(3-amino-1,2,4-oxadiazol)yl]quinuclidine and 4-dimethylaminopyridine in pyridine at 0° and the mixture was kept at 40° for 16 h to give 36% 3-[5-(3-octanoylamino-1,2,4-oxadiazol)yl]quinuclidine.

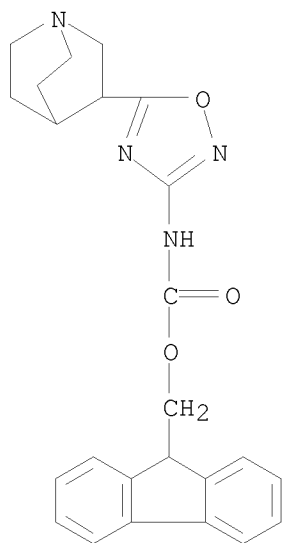
IT 121024-58-6P 121037-71-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as CNS agent)

RN 121024-58-6 CAPLUS

CN Carbamic acid, [5-(1-azabicyclo[2.2.2]oct-3-yl)-1,2,4-oxadiazol-3-yl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)



RN 121037-71-6 CAPLUS
 CN Carbamic acid, [5-(1-azabicyclo[2.2.2]oct-3-yl)-1,2,4-oxadiazol-3-yl]-, 9H-fluoren-9-ylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L3 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1987:575226 CAPLUS

DOCUMENT NUMBER: 107:175226

ORIGINAL REFERENCE NO.: 107:28111a,28114a

TITLE: Asymmetric epoxidation of cyclic enones under chiral phase transfer conditions

AUTHOR(S): Baba, Naomichi; Oda, Junichi; Kawaguchi, Mamoru

CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, 611, Japan

SOURCE: Agricultural and Biological Chemistry (1986), 50(12), 3113-17

CODEN: ABCHA6; ISSN: 0002-1369

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Asym. epoxidn. of cyclic enones was performed with 9-alkylfluorenyl peroxides under two-phase conditions in the presence of novel phase transfer catalysts derived from cinchona alkaloids. The observed enantiomeric excess ranged between 30 .apprx.63%, from which it is shown that the fluorenyl group had a remarkable effect on the enhancement of enantioselectivity.

IT 110605-20-4

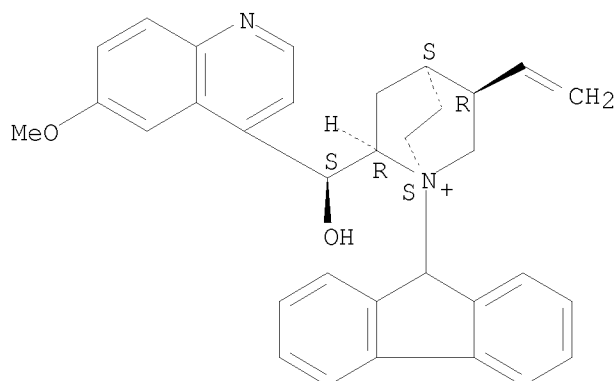
RL: CAT (Catalyst use); USES (Uses)

(phase transfer catalysts, for asym. epoxidn. of cyclic enones)

RN 110605-20-4 CAPLUS

CN Cinchonanium, 1-(9H-fluoren-9-yl)-9-hydroxy-6'-methoxy-, bromide, (9S)-(9CI) (CA INDEX NAME)

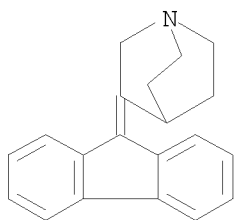
Absolute stereochemistry.



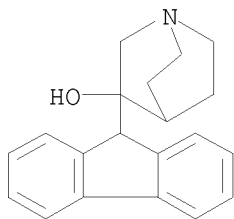
● Br⁻

L3 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1975:541876 CAPLUS
DOCUMENT NUMBER: 83:141876
ORIGINAL REFERENCE NO.: 83:22233a,22236a
TITLE: Tricyclic quinuclidylidenes as potential
antihistamine-bronchodilating agents
AUTHOR(S): Villani, Frank J.; Mann, Thomas A.; Wefer, Elizabeth
A.
CORPORATE SOURCE: Dep. Med. Chem., Schering Corp., Bloomfield, NJ, USA
SOURCE: Journal of Medicinal Chemistry (1975), 18(7), 666-9
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 83:141876
GI For diagram(s), see printed CA Issue.
AB Of 9 title compds., prepared by dehydration of the carbinols formed by
reductive alkylation of tricyclic ketones with 3-chloroquinuclidine
[42332-45-6] or the reaction of tricyclic lithio derivs. with
3-quinuclidinone [3731-38-2], 4 had antihistamine activity in tests with
guinea pigs. The most active compound (I) [56490-15-4], delayed the onset
of dyspnea from histamine aerosol for 200 sec in 50% of test animals at an
oral dose level of 620 µg/kg. Tests on isolated anaphylactic guinea
pig lung showed that I acted only through an antihistaminic mechanism.
IT 56490-07-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and antihistaminic activity of)
RN 56490-07-4 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-9-ylidene)- (CA INDEX NAME)



IT 56489-99-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and dehydration of)
RN 56489-99-7 CAPLUS
CN 1-Azabicyclo[2.2.2]octan-3-ol, 3-(9H-fluoren-9-yl)- (CA INDEX NAME)

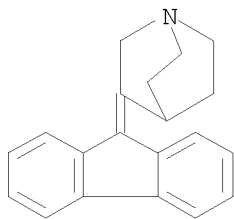


IT 56490-12-1P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 56490-12-1 CAPLUS

CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-9-ylidene)-, hydrochloride (1:1)
(CA INDEX NAME)



● HCl

L3 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1974:504467 CAPLUS

DOCUMENT NUMBER: 81:104467

ORIGINAL REFERENCE NO.: 81:16515a,16518a

TITLE: Hydrogen bond condition in some anticholinergic esters of glycolic acids. I

AUTHOR(S): Larsson, Lennart; Wallensteen, Mana; Wallerberg, Gun; Oestman, Boerje

CORPORATE SOURCE: Div. Appl. Org. Chem., Res. Inst. Natl. Def., Sundbyberg, Swed.

SOURCE: Acta Pharmaceutica Suecica (1974), 11(3), 304-8
CODEN: APSXAS; ISSN: 0001-6675

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A correlation was not found between H bonding in 14 glycolates HOCRR1CO2R2 (e.g., R,R1 = Ph, thienyl, pyridyl; R2 = Me, Me2NCH2CH2, quinuclidinyl), determined by ir spectra, and their anticholinergic and psychotomimetic activity.

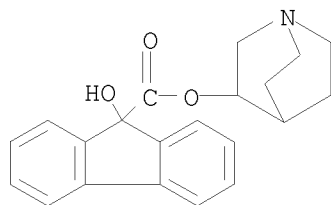
IT 29686-07-5

RL: PRP (Properties)

(ir spectrum of, relation between hydrogen bonding and biological activity of)

RN 29686-07-5 CAPLUS

CN 9H-Fluorene-9-carboxylic acid, 9-hydroxy-, 1-azabicyclo[2.2.2]oct-3-yl ester (CA INDEX NAME)



L3 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1973:461408 CAPLUS

DOCUMENT NUMBER: 79:61408

ORIGINAL REFERENCE NO.: 79:9847a,9850a

TITLE: Acid-base properties of atropine, scopolamine, and some glycolic acid esters

AUTHOR(S): Meyerhoffer, Anita; Wahlberg, Olof

CORPORATE SOURCE: Res. Inst. Natl. Def., Sundbyberg, Swed.

SOURCE: Acta Chemica Scandinavica (1947-1973) (1973), 27(3), 868-74

CODEN: ACSAA4; ISSN: 0001-5393

DOCUMENT TYPE: Journal

LANGUAGE: English

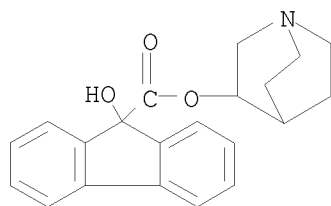
AB Atropine (I) [51-55-8], scopolamine-HBr [114-49-8], and 9 other related anticholinergic compds. had pKa values of 8-10, as determined by emf titrns. in 0.1 M NaCl at 25.deg..

IT 29686-07-5

RL: BIOL (Biological study)
(acid-base properties of)

RN 29686-07-5 CAPLUS

CN 9H-Fluorene-9-carboxylic acid, 9-hydroxy-, 1-azabicyclo[2.2.2]oct-3-yl ester (CA INDEX NAME)



L3 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1970:475272 CAPLUS

DOCUMENT NUMBER: 73:75272

ORIGINAL REFERENCE NO.: 73:12305a,12308a

TITLE: Central and peripheral effects of anticholinergic compounds

AUTHOR(S): Albanus, Lennart

CORPORATE SOURCE: Div. Exptl. Def. Med., Res. Inst. Nat. Def., Stockholm, Swed.

SOURCE: Acta Pharmacologica et Toxicologica (1970), 28(4), 305-26

CODEN: APTOA6; ISSN: 0001-6683

DOCUMENT TYPE: Journal

LANGUAGE: English

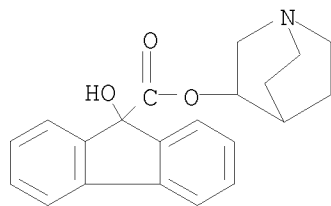
AB 3-Tropyl benzilate, 1-methyl-4-piperidyl benzilate, and 3-quinuclidinylcyclopentyl phenylglycolate, at 10 µg/kg, s.c., caused behavioral changes, especially in locomotion, similar to those induced by atropine and scopolamine in dogs. All compds. exhibited anticholinergic activity, the most effective one being 3-quinuclidinyl-2-thienyl phenylglycolate, which also had the most potent behavioral effect.

IT 29686-07-5

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmacology of)

RN 29686-07-5 CAPLUS

CN 9H-Fluorene-9-carboxylic acid, 9-hydroxy-, 1-azabicyclo[2.2.2]oct-3-yl ester (CA INDEX NAME)



L3 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1968:435886 CAPLUS

DOCUMENT NUMBER: 69:35886

ORIGINAL REFERENCE NO.: 69:6683a,6686a

TITLE: Some quinuclidine derivatives with potential antimalarial activity

AUTHOR(S): Nilsson, J. Lars G.; Wagermark, Jorgen; Dahlbom, Richard

CORPORATE SOURCE: Kungl. Farm. Inst., Stockholm, Swed.

SOURCE: Acta Pharmaceutica Suecica (1968), 5(2), 71-6

CODEN: APSXAS; ISSN: 0001-6675

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

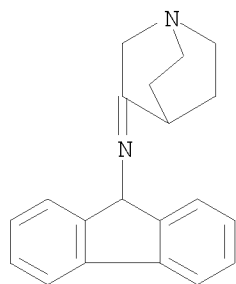
AB A series of carbamates and Schiff bases were prepared with a structural similarity to quinine. To 3.3 g. 3-quinuclidinol in 50 ml. dry PhMe was added 0.6 g. powdered Na and the mixture refluxed 2 hrs. to form the alcoholate. N,N-Diphenylcarbamoyl chloride (6 g.) dissolved in 25 ml. PhMe was then slowly added, and the mixture stirred and refluxed 1 hr. to yield 74% 3-quinuclidinyl N,N-diphenylcarbamate, m. 79-80°. The following I were similarly prepared (R, % yield, and m.p. given): phenothiazino, 85, 183-4°; N-ethylanilino, 44, 190-2°; indolino, 82, 125°. II were synthesized by the usual procedure (same data given): diphenylmethyl, 62, 108°; 9-fluorenyl, 35, 189-90°; cyclohexyl, 80, 75-6°. The carbamates showed strong anticholinergic activity both centrally and peripherally.

IT 18692-64-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 18692-64-3 CAPLUS

CN 9H-Fluoren-9-amine, N-1-azabicyclo[2.2.2]oct-3-ylidene- (CA INDEX NAME)



=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

201.76

387.86

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-27.88

-27.88

STN INTERNATIONAL LOGOFF AT 20:37:28 ON 15 MAY 2009